

**UNITED STATES DISTRICT COURT  
WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

CANON, INC.

Plaintiff,

vs.

ROKU INC.,

Defendant.

CIVIL ACTION NO. 6:19-cv-00245

**JURY TRIAL DEMANDED**

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Canon, Inc. (“Canon” or “Plaintiff”) brings this Complaint for Patent Infringement (“Complaint”) and for Jury Trial against Roku Inc. (“Roku” or “Defendant”). Plaintiff alleges as follows:

**THE PARTIES**

1 Canon is a corporation organized and existing under the laws of Japan. Its principal place of business is located at 30-2, Shimomaruko 3-chome, Ohta-ku, Tokyo 146-8501, Japan.

2 Defendant Roku, Inc. is a Delaware corporation and is authorized to do business in Texas.

3 Roku may be served through its agent for service of process, Corporation Service Company, 211 E. 7th St, Suite 620, Austin Texas 78701.

4 Roku has a regular and established place of business at 9606 N. Mopac Expressway, Suite 400, Austin, Texas 78759.

5 On information and belief, Roku is responsible for all phases of the Roku TVs' research and development – including the development, planning, manufacturing, and marketing of Roku TVs.

6 Furthermore, on information and belief, Roku – on its own and/or through third parties – makes, sells, offers for sale, imports, and/or uses infringing systems comprising televisions that integrate and make use of the Roku Operation System (the “Roku OS”) in this judicial District. These infringing systems are referred to as “Roku TVs.”

7 On information and belief, Roku – on its own and/or through third parties – advertises, markets, and/or otherwise promotes Roku TVs in this judicial District.

8 On information and belief, Roku has a licensing agreement with TCL Electronics Holdings Ltd. and TTE Technology Inc. (collectively “TCL”) wherein Roku purports to authorize and to induce TCL to make, sell, offer for sale, import and/or use Roku TVs in the U.S.

### **JURISDICTION AND VENUE**

9 This is an action for patent infringement arising under the patent laws of the United States, Title 35 of the United States Code. Accordingly, this Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

10 This Court has specific personal jurisdiction over Defendant at least in part because Defendant conducts business in this Judicial District. Canon's causes of action arise, at least in part, from Defendant's contacts with and activities in the State of Texas and this Judicial District. Upon information and belief, Defendant has committed acts of infringement within the

State of Texas and this Judicial District by, *inter alia*, directly and/or indirectly using, selling or offering to sell products that infringe one or more claims of Canon's patents asserted herein.

11 Thus, Defendant has established minimum contacts with the State of Texas and the exercise of jurisdiction would not offend traditional notions of fair play and substantial justice.

12 Venue is proper in this Judicial District pursuant to 28 U.S.C. § 1391(b), (c) and 1400(b) because (1) Defendant has done and continues to do business in this Judicial District; and (2) Defendant has committed and continues to commit acts of patent infringement in this Judicial District by, *inter alia*, directly and/or indirectly using, selling or offering to sell infringing products in this Judicial District.

### **THE CANON PATENTS**

13 On June 29, 2010, the United States Patent & Trademark Office (USPTO) issued United States Patent No. 7,746,413 ("the '413 Patent"), titled "Operation Screen Controlling Method, Operation Screen Controlling Program, and Display Device" to Canon as assignee of the inventors, Keiichi Aoyama, Shigeki Mori, and Shuntaro Aratani. A true and correct copy of the '413 Patent is attached as Exhibit 1 to this Complaint and is incorporated by reference herein.

14 The '413 Patent is generally directed to a display controlling method or system for displaying operation screens that are suitable for various remote controls with various attributes. The '413 Patent discloses and specifically claims inventive and patentable subject matters that represent significant improvements over conventional display controlling method/system that was available at the time of filing of the '413 Patent and are more than just generic apparatus or software components performing conventional activities.

15 At the time of filing of the '413 Patent, "there has been proposed a television receiver, which is enabled to use a plurality of remote control devices [] by giving priority to the individual remote control devices to improve the operability of the television received" "[i]n case a plurality of remote control devices for controlling a television receiver" were available. Ex. 1 at Col. 1, ll. 17-24. Such proposed television receiver, however, had the problem of its "operation screen of a graphical user interface" being not suited for the attributes and operation devices associated with the remote control device used to control the graphical user interface. *Id.*, Col. 1, ll. 28-30. The '413 Patent's claimed display controlling method/system solves this problem of "the operability" being "degraded by the remote control device used" by reciting specific and significant improvements over the conventional display controlling method/system, such as, for example, to acquire an attribute of a remote control device, determine the most suitable operation form corresponding to the remote control device's attribute by evaluating a degree of suitability between the remote control device's attributes and the operation forms stored by the apparatus as the subject of controlling and display the most suitable operation form. The claims of the '413 Patent are directed to these specific improvements in the capabilities of display controlling technology and devices, not to an abstract process that merely invokes these devices as tools.

16 Given the state of the art at the time of filing of the '413 Patent, the claim limitations of the '413 Patent, both individually and as an ordered combination, were not conventional, well-understood, or routine. The '413 Patent discloses, among other things, an unconventional technological solution to an issue arising specifically in the context of controlling electronic display and communications between electronic devices. The solution implemented

by the ‘413 Patent provides a specific and substantial improvement over prior electronic display and communications systems in electronic devices, including by introducing novel elements combined in an unconventional manner directed to improving the function and working of electronic devices such as, *inter alia*, the claimed “determining an operation form corresponding to the remote control device from among a plurality of operation forms previously stored based on the acquired attribute of the remote control device...wherein, in the step of determining the operation form, the operation form corresponding to the remote control device is determined by evaluating a degree of suitability between the remote control device and each of the plurality of operation forms based on the acquired attribute of the remote control device” (Claim 1). As discussed above, these claimed elements and their combination were not present in the prior art, and represent unconventional and concrete improvements over the prior art.

17 Consistent with the problem addressed being rooted in electronic displays and communications between electronic devices, the ‘413 Patent’s solutions are also rooted in the same technology that cannot be performed with pen and paper or in the human mind. This technical context is reflected in the ‘413 Patent’s claims, as described above.

18 A person having ordinary skill in the art at the time of the inventions of the ‘413 Patent would not have understood that the inventions could or would be performed solely in the human mind or using pen and paper. Using pen and paper would ignore the stated purpose of the ‘413 Patent and the problem the patented technology was specifically designed to address. Doing so would also run counter to the inventors’ detailed description of the inventions, and the language of the claims, and be a practical impossibility.

19 On December 13, 2011, the USPTO issued United States Patent No. 8,078,767 (“the ’767 Patent”), titled “Display Apparatus, Control Method Thereof, and Program” to Canon as assignee of the inventor, Junji Kotani. A true and correct copy of the ’767 Patent is attached as Exhibit 2 to this Complaint and is incorporated by reference herein.

20 The ’767 Patent is generally directed to a display method or system that displays an image from an external device for some period of time after being disconnected when the external device is of predetermined class. The ’767 Patent discloses and specifically claims inventive and patentable subject matters that represent specific and significant improvements over conventional display method/system that was available at the time of filing of the ’767 Patent and are more than just generic apparatus or software components performing conventional activities.

21 At the time of filing of the ’767 Patent, “the conventional display apparatus [could] be connected to various devices, and [could] display image data stored in a connected device. However, independently of the device class to be connected, when a communication [was] disconnected, the display operation of an image transmitted from that device end[ed]. For this reason, in addition to the image display end operation that the user intended by removing the flash memory or USB cable, the image display operation often end[ed] without the intention of the user by the control on the device side that logically disconnects a communication connection.” Ex. 2 at Col. 5, ll. 15-25. The ’767 Patent’s claimed display method/system solved this problem by, for example, reciting the specific method of determining to continue or to end displaying contents retrieved from the external device connected to the display apparatus, at the time of disconnection of the external device, by recognizing and distinguishing among the

classes / types of external devices as well as how such device is disconnected from the display apparatus. The claims of the '767 Patent are directed to these specific improvements in the capabilities of the aforementioned display technology and devices, not to an abstract process that merely invokes these devices as tools.

22 Given the state of the art at the time of filing of the '767 Patent, the claim limitations of the '767 Patent, both individually and as an ordered combination, were not conventional, well-understood, or routine. The '767 Patent discloses, among other things, an unconventional technological solution to an issue arising specifically in the context of controlling electronic display and communications between electronic devices. The solution implemented by the '767 Patent provides a specific and substantial improvement over prior electronic display and communications systems in electronic devices, including by introducing novel elements combined in an unconventional manner directed to improving the function and working of electronic devices such as, *inter alia*, the claimed “control unit acquir[ing] class information indicating a class of the external device from the external device via said connection unit, control[ing] said display unit to continue the display based on the data received from the external device at the time of disconnection of the communication connection with the external device if the class of the external device indicated by the class information is a predetermined class, and control[ing] said display unit to end the display based on the data received from the external device at the time of disconnection of the communication connection with the external device if the class of the external device indicated by the class information is not the predetermined class.” (Claim 1). As discussed above, these claimed elements and their combination were not present in the prior art, and represent unconventional and concrete improvements over the prior art.

23 Consistent with the problem addressed being rooted in electronic displays and communications between electronic devices, the ‘767 Patent’s solutions are also rooted in the same technology that cannot be performed with pen and paper or in the human mind. This technical context is reflected in the ‘767 Patent’s claims, as described above.

24 A person having ordinary skill in the art at the time of the inventions of the ‘767 Patent would not have understood that the inventions could or would be performed solely in the human mind or using pen and paper. Using pen and paper would ignore the stated purpose of the ‘767 Patent and the problem the patented technology was specifically designed to address. Doing so would also run counter to the inventors’ detailed description of the inventions, and the language of the claims, and be a practical impossibility.

25 On January 1, 2013, the USPTO issued United States Patent No. 8,346,986 (“the ‘986 Patent”), titled “Display Apparatus, Control Method Thereof, and Program” to Canon as assignee of the inventor, Junji Kotani. A true and correct copy of the ‘986 Patent is attached as Exhibit 3 to this Complaint and is incorporated by reference herein.

26 The ‘986 Patent is generally directed to a display method or system that displays an image from an external device for some period of time after being disconnected when the type of external device is of a class and/or when the disconnection was logical or physical. The ‘986 Patent discloses and specifically claims inventive and patentable subject matters that represent specific significant improvements over conventional display method/system that was available at the time of filing of the ‘986 Patent and are more than just generic apparatus or software components performing conventional activities.



27 At the time of filing of the '986 Patent, "the conventional display apparatus [could] be connected to various devices, and [could] display image data stored in a connected device. However, independently of the device class to be connected, when a communication [was] disconnected, the display operation of an image transmitted from that device end[ed]. For this reason, in addition to the image display end operation that the user intended by removing the flash memory or USB cable, the image display operation often end[ed] without the intention of the user by the control on the device side that logically disconnects a communication connection." Ex. 3 at Col. 5, ll. 15-25. The '986 Patent's claimed display method/system solved this problem by, for example, reciting the specific method of determining to continue or to end displaying contents retrieved from the external device connected to the display apparatus, at the time of disconnection of the external device, by recognizing and distinguishing among the classes / types of external devices as well as how such device is disconnected from the display apparatus. The claims of the '986 Patent are directed to these specific improvements in the capabilities of the aforementioned display technology and systems, not to an abstract process that merely invokes these systems as tools.

28 Given the state of the art at the time of filing of the '986 Patent, the claim limitations of the '986 Patent, both individually and as an ordered combination, were not conventional, well-understood, or routine. The '986 Patent discloses, among other things, an unconventional technological solution to an issue arising specifically in the context of controlling electronic display and communications between electronic devices. The solution implemented by the '986 Patent provides a specific and substantial improvement over prior electronic display and communications systems in electronic devices, including by introducing novel elements

combined in an unconventional manner directed to improving the function and working of electronic devices such as, *inter alia*, the claimed “determination unit configured to determine whether or not to continue the display of the image received from the external device by detecting whether the communication is physically disconnected or whether the communication is logically disconnected when the communication with the external device is disconnected” (Claim 1). As discussed above, these claimed elements and their combination were not present in the prior art, and represent unconventional and concrete improvements over the prior art.

29 Consistent with the problem addressed being rooted in electronic displays and communications between electronic devices, the ‘986 Patent’s solutions are also rooted in the same technology that cannot be performed with pen and paper or in the human mind. This technical context is reflected in the ‘986 Patent’s claims, as described above.

30 A person having ordinary skill in the art at the time of the inventions of the ‘986 Patent would not have understood that the inventions could or would be performed solely in the human mind or using pen and paper. Using pen and paper would ignore the stated purpose of the ‘986 Patent and the problem the patented technology was specifically designed to address. Doing so would also run counter to the inventors’ detailed description of the inventions, and the language of the claims, and be a practical impossibility.

31 On April 29, 2014, the USPTO issued United States Patent No. 8,713,206 (“the ‘206 Patent”), titled “Display Apparatus, Control Method Thereof, and Program” to Canon as the assignee of the inventor, Junji Kotani. A true and correct copy of the ‘206 Patent is attached as Exhibit 4 to this Complaint and is incorporated by reference herein.

32 The '206 Patent is generally directed to a display method or system that displays an image from an external device for some period of time after being disconnected, the period of time varying based on the type of external device and/or whether the disconnection was logical or physical. The '206 Patent discloses and specifically claims inventive and patentable subject matters that represent specific and significant improvements over conventional display method/system that was available at the time of filing of the '206 Patent and are more than just generic apparatus or software components performing conventional activities.

33 At the time of filing of the '206 Patent, "the conventional display apparatus [could] be connected to various devices, and [could] display image data stored in a connected device. However, independently of the device class to be connected, when a communication [was] disconnected, the display operation of an image transmitted from that device end[ed]. For this reason, in addition to the image display end operation that the user intended by removing the flash memory or USB cable, the image display operation often end[ed] without the intention of the user by the control on the device side that logically disconnects a communication connection." Ex. 4 at Col. 5, ll. 19-29. The '206 Patent's claimed display method/system solved this problem by, for example, reciting the specific method of determining to continue or to end displaying contents retrieved from the external device connected to the display apparatus, at the time of disconnection of the external device, by recognizing and distinguishing among the classes / types of external devices as well as how such device is disconnected from the display apparatus. The claims of the '206 Patent are directed to these specific improvements in the capabilities of the aforementioned display technology and systems, not to an abstract process that merely invokes these systems as tools.

34 Given the state of the art at the time of filing of the ‘206 Patent, the inventive concepts of the ‘206 Patent were not conventional, well-understood, or routine. The ‘206 Patent discloses, among other things, an unconventional technological solution to an issue arising specifically in the context of controlling electronic display and communications between electronic devices. The solution implemented by the ‘206 Patent provides a specific and substantial improvement over prior electronic display and communications systems in electronic devices, including by introducing novel elements directed to improving the function and working of electronic devices such as, *inter alia*, the claimed “display control unit [that] varies a period of time from the disconnection to the stopping of the display of the image depending on a determination result as to whether the disconnection of the communication with the external device is a physical disconnection or a logical disconnection.” (Claim 7). As discussed above, these claimed elements and their combination were not present in the prior art, and represent unconventional and concrete improvements over the prior art.

35 Consistent with the problem addressed being rooted in electronic displays and communications between electronic devices, the ‘206 Patent’s solutions are also rooted in the same technology that cannot be performed with pen and paper or in the human mind. This technical context is reflected in the ‘206 Patent’s claims, as described above.

36 A person having ordinary skill in the art at the time of the inventions of the ‘206 Patent would not have understood that the inventions could or would be performed solely in the human mind or using pen and paper. Using pen and paper would ignore the stated purpose of the ‘206 Patent and the problem the patented technology was specifically designed to address.

Doing so would also run counter to the inventors' detailed description of the inventions, and the language of the claims, and be a practical impossibility.

37 On October 5, 2010, the USPTO issued United States Patent No. 7,810,130 ("the '130 Patent"), titled "Method and Apparatus of Power Management for Moving Image-Streaming Content" to Canon as assignee of the inventors Atsushi Mizutome and Masaki Kutsuna. A true and correct copy of the '130 Patent is attached as Exhibit 5 to this Complaint and is incorporated by reference herein.

38 The '130 Patent is generally directed to a method and system for buffering streaming contents while the contents are not being displayed on a television either while the television's power is off or while the user is viewing other programs. The '130 Patent discloses and specifically claims inventive and patentable subject matters that represent specific and significant improvements over conventional method/system for streaming internet contents on a television that was available at the time of filing of the '130 Patent and are more than just generic apparatus or software components performing conventional activities.

39 At the time of filing of the '130 Patent, the inventor recognized that a "conventional broadcast system is currently being shifted to a digital broadcast system in which television signals are transmitted as digital signals" and the "shift to the digital broadcast system is underway to enhance image quality and to increase the number of channels by utilizing digital transmission and coding technologies." Ex. 5 at Col. 1, ll. 19-24. The inventor of the '130 Patent further observed that at the time of filing of the '130 Patent, "it [was] becoming widespread to use the Internet to provide a distribution of moving images comparable in quality to that of the television broadcast, that is, a distribution of streaming contents" but unlike

television broadcast receiving, “the streaming broadcast is not received immediately after calling up a desired channel.” *Id.* at Col. 1, ll. 27-42. The inventor, then, proposed that “in the near future, while communication infrastructures are improved in the individual households, it becomes widespread to enjoy the streaming broadcast, as well as the conventional television broadcast, on television in living rooms” where the users of such streaming system would demand “to select and audiovisually enjoy a program (contents) of the streaming broadcast in such a manner as to feel as comfortable as in the conventional television broadcast.” *Id.* at Col. 2, ll. 6-17. After recognizing this future needs, the inventor foresaw potential problems that the ‘130 Patent proposes to solve, namely, “a general television audience is accustomed to watching television, that is, being able to audiovisually enjoy a desired program immediately after turning on a power and selecting a corresponding channel. Therefore, it is impractical for the television audience himself/herself to find out main data and a location (address (and a file name)) of streaming contents that he/she wishes to audiovisually enjoy, and to perform the pull-type operation for receiving distributed contents based on the found data. Thus, it is necessary to provide a form capable of selecting and audiovisually enjoying contents by a simpler method such that the audience feels as comfortable as when audiovisually enjoying a television program.” *Id.* at Col. 2, ll. 25-38. As another problem the inventor sought to solve, the inventor recognized that “unlike the general process for receiving the television broadcast, the receiving process for the streaming contents requires a time period of several to ten and several seconds at the time of switching the streaming contents which corresponds to the time of changing channels on television. Meanwhile, the user must wait for the same time period...for buffering...desired streaming contents in a distribution side server and a time period required for buffering a

predetermined amount of the streaming contents on a receiving terminal side.” *Id.* at Col. 2, ll. 45-53. The ‘130 Patent’s claimed buffering method/system solves these problems addressed above by reciting significant improvements over the conventional television system and method of streaming contents, namely, for example, to store URL information associated with the desired streaming contents, to access the URLs repeatedly while the TV is turned off or while the TV is displaying broadcast programs, to buffer the streaming contents while the TV is turned off or while the TV is displaying broadcast programs and to display the buffered contents after the TV is turned back on or controlled to switch from displaying broadcast programs to displaying streaming contents again. The claims of the ‘130 Patent are directed to these specific improvements in the capabilities of the aforementioned buffering technology and systems, not to an abstract process that merely invokes these systems as tools.

40        Given the state of the art at the time of filing of the ‘130 Patent, the inventive concepts of the ‘130 Patent were not conventional, well-understood, or routine. The ‘130 Patent discloses, among other things, an unconventional technological solution to an issue arising specifically in the context of electronic buffering and streaming devices and communications between electronic devices. The solution implemented by the ‘130 Patent provides a specific and substantial improvement over prior electronic buffering, streaming and communications systems in electronic devices, including by introducing novel elements directed to improving the function and working of electronic devices such as, *inter alia*, the claimed “control unit for (1) controlling, responsive to the receiving by the operation unit of the operation of turning off the power source, to read out the URL information stored in the memory unit, and (2) controlling, while the power source is in an off state, to periodically repeat accessing of a URL of the moving

image-streaming content which had been displayed before the turning off the power source, so as to receive by the receiving unit and to buffer in the buffering unit the latest moving image-streaming content, and (3) controlling, responsive to the receiving by the operation unit of the operation of turning on the power source, to read out from the buffering unit the latest buffered moving image-streaming content and to start the displaying on the display screen of the latest buffered moving image-streaming content” (Claim 1). As discussed above, these claimed elements and their combination were not present in the prior art, and represent unconventional and concrete improvements over the prior art.

41 Consistent with the problem addressed being rooted in electronic streaming, buffering and communications between electronic devices, the ‘130 Patent’s solutions are also rooted in the same technology that cannot be performed with pen and paper or in the human mind. This technical context is reflected in the ‘130 Patent’s claims, as described above.

42 A person having ordinary skill in the art at the time of the inventions of the ‘130 Patent would not have understood that the inventions could or would be performed solely in the human mind or using pen and paper. Using pen and paper would ignore the stated purpose of the ‘130 Patent and the problem the patented technology was specifically designed to address. Doing so would also run counter to the inventors’ detailed description of the inventions, and the language of the claims, and be a practical impossibility.

43 Canon is the sole owner of the entire right, title and interest in and to the ’413, ’767, ’986, ’206 and ’130 Patents (collectively, the “Asserted Patents”), including the right to sue and recover for any and all infringements thereof. While the Asserted Patents reference “Canon



Kabushiki Kaisha” as their Assignee, “Canon Kabushiki Kaisha” is a Japanese translation for Canon Inc. and is an identical entity as Canon Inc., the plaintiff of this action.

44 The Asserted Patents are valid and enforceable.

**DEFENDANT’S INFRINGING PRODUCTS AND ACTIVITIES**

45 Defendant, its Roku TV licensees, and its customers make, use, sell or offer to sell within the United States or import into the United States the Roku TVs that integrate and make use of the Roku OS.

46 Certain Roku TVs comprise a television that displays a number of operation screens, each with a number of operation forms that can be and are displayed, depending on the remote control device being used. They are capable of acquiring an attribute of a remote control device and determining an operation form corresponding to the remote control device from among a plurality of operation forms based on the acquired attribute of the remote control device by evaluating a degree of suitability between the remote control device and the plurality of operation forms and display an operation screen related to the determined operation form displayed. On information, the Roku OS helps implement these capabilities in these Roku TVs’ hardware and software.

47 Certain Roku TVs, moreover, comprise a television to which various classes / types of external devices can be connected; contents retrieved from these various external devices can be displayed on the system’s display. Furthermore, each of these Roku TVs are capable of recognizing and also distinguishing among the classes / types of external devices connected to the television. Depending on the class / type of the external device connected to the system, the Roku TVs are capable of determining whether to continue (or to end) displaying

contents retrieved from the external device when such device is disconnected. And, depending on the class / type of the external device connected to the system and how such device is disconnected from the system, the Roku TVs are capable of determining whether to continue (or to end) displaying contents retrieved from the external device when such device is disconnected. On information, the Roku OS helps implement these capabilities in these Roku TVs' hardware and software.

48 Certain Roku TVs comprise a television to which various types of external devices can be connected; content retrieved from these various external devices can be displayed on the system's display. Furthermore, each of these Roku TVs is capable of and does recognize and distinguish among the types of external devices connected to the television. Depending on the type of the external device connected to the system, the Roku TVs are capable of varying the timing for stopping the display of contents retrieved from the external device after such device is disconnected. And, depending on the type of the external device connected to the system and how such device is disconnected from the system, the Roku TVs are capable of varying the timing for stopping the display of contents retrieved from the external device after such device is disconnected. On information, the Roku OS helps implement these capabilities in these Roku TVs' hardware and software.

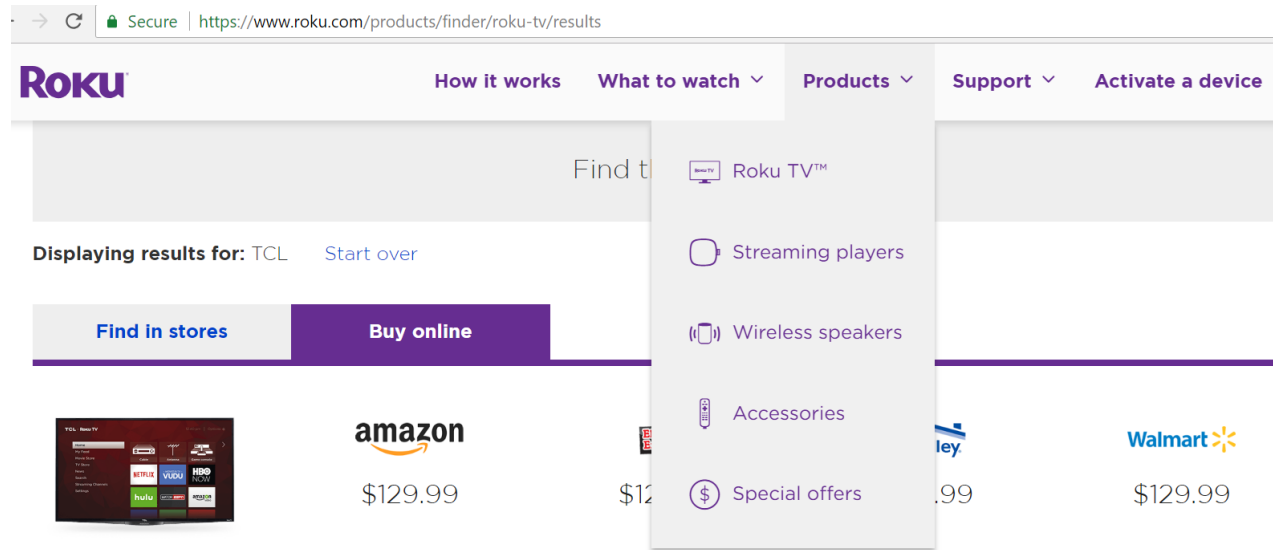
49 Certain Roku TVs comprise a television capable of receiving and displaying streaming contents over the Internet. Furthermore, each of these Roku TVs is capable of storing URL information associated with the streaming contents, accessing the URLs while the TV is turned off or while the TV is displaying broadcast programs, buffering the streaming contents while the TV is turned off or while the TV is displaying broadcast programs and displaying the

buffered contents after the TV is turned back on or controlled to switch from displaying broadcast programs to displaying streaming contents again. On information, the Roku OS helps implement these capabilities in these Roku TVs' hardware and software.

50      Infringing products used by Defendant and its customers within the United States include, among others, the following Roku TVs: 3-series TV systems (e.g., Models 32S325, 40S325, 43S325, 49S325, 28S305, 32S301, 32S305, 32S327, 40S303, 40S305, 43S303, 43S305, 49S303, and 49S305), 4-series TV systems (e.g., Models 43S421, 50S421, 55S421, 65S421, 43S423, 75S423, 75S425, 43S403, 43S405, 43S425, 49S403, 49S405, 49S425, 50S423, 50S425, 55S423, 55S425, 55S401, 55S403, 55S405, 65S401, 65S403, 65S405, 65S423 and 65S425), 5-series TV Systems (e.g., Models 43S515, 43S517, 49S515, 49S517, 55S515, 55S517, 65S515 and 65S517), 6-series TV Systems (e.g., Models 75R517, 55R615, 55R617, 65R615, 65R617 and 75R615), P6-series TV Systems (e.g., Models 55P605 and 55P607), and C8-series TV Systems (e.g., Models 55C803, 55C807, 65C807, 75C803 and 75C807), S-series TV systems (e.g., 32S3700, 40FS3750, 65US5800, 55US5800, 32S3700, 40F3750, 32S3750, 28S3750, 32S3850A, 32S3850B, 32S3850P, 32S3850, 55FS3750, 48FS3750, 55FS3850, 50FS3850, 32S3800, 50FS3800, 40FS3800, 40FS3850, 40FS4610R, 48FS3700, 48FS4610R, 55FS3700, 55FS4610R), P-series TV systems (e.g., 55UP130, 43UP130, 50UP130, 55UP120, 50UP120, 43UP120, 49FP110, 43FP110) (collectively, the "Accused Products").

51      As shown below, Defendant sells and offers to sell these Accused Products within the United States through its U.S. website at [www.roku.com](http://www.roku.com). Customers have options to buy any of the Accused Products either by going to retail stores listed on Roku's website under "Find in

stores” or buy online through online retail stores, such as Amazon and Walmart, by clicking the links listed in Roku’s website under “Buy online.”



See Ex. 16 (<https://www.roku.com/products/finder/roku-tv/results>).

**COUNT I**  
**(Direct Infringement of the '413 Patent pursuant to 35 U.S.C. § 271(a))**

52 Canon repeats, realleges, and incorporates by reference, as if fully set forth herein, the allegations of the preceding paragraphs.

53 Roku TVs that can be operated by TCL Roku Enhanced Remote Control device, including without limitations, 43UP130, 50UP130, 55UP130, 55C807, 65C807, 75C807, 55P607, 55S517, 65S517, 43S517, 49S517, 55R617, 65R617, 75R615 and 55P607 (“the ‘413 Accused Products”) integrate and make use of Roku OS and Roku services.

54 Defendant has directly infringed and continues to directly infringe Claims 1-5, 7-11 of the '413 Patent literally and/or under the doctrine of equivalents by selling or offering to

sell the '413 Accused Products through its own U.S. website at [www.roku.com](http://www.roku.com). *See* Ex. 16 (<https://www.roku.com/products/finder/roku-tv/results>).

55 Defendant has directly infringed and continues to directly infringe Claims 1-5, 7-11 of the '413 Patent literally and/or under the doctrine of equivalents by using the '413 Accused Products in the United States during televisions' research and development, such as when testing the Roku OS and Roku services on the '413 Accused Products.

56 Furthermore, Defendant has directly infringed and continues to directly infringe the method claims of the '413 Patent literally and/or under the doctrine of equivalents, by conditioning the receiving of benefits by TCL of using features within Roku OS upon performance of a step or steps of a patented method such as the displaying step and establishing the manner or timing of that performance by providing Roku OS and its smart TV hardware reference design.

57 Defendant's acts of selling, offering for sale, and using infringing products and services have been without the permission, consent, authorization or license of Canon.

58 In particular, the '413 Accused Products practice and/or embody the patented invention of the '413 Patent, and the '413 Accused Products meets each and every limitation of the apparatus claims of the '413 Patent, including the capability to display operation screens that are suitable for various remote controls with various attributes. Accordingly, Defendant's sale, offer for sale and use of the '413 Accused Products infringes the apparatus claims of the '413 Patent.

59 Furthermore, the '413 Accused Products practice and/or embody the patented invention of the '413 Patent, and the use of the '413 Accused Products infringes the method

claims of the '413 Patent because such use leads to the performing of each and every step of the claimed methods, including displaying operation screens that are suitable for various remote controls with various attributes.

60 As a way of illustration, each of the '413 Accused Products displays a voice control operation screen for certain remote control devices that have a voice control attribute without a touch panel attribute. Upon information and belief, the '413 Accused Products accomplish this by acquiring an attribute of a remote control device and determining the operation form suitable for the remote control device by evaluating a degree of suitability between the remote control device and the plurality of operation forms available to them. The '413 Accused Products may be operated through voice commands when the voice command button on an enhanced remote control, such as a magnifying glass button, as shown below, is pressed. An operation screen is then displayed on the television, displaying a microphone and a message to hold the microphone button and speak, also as shown below.<sup>1</sup>



<sup>1</sup> All pictures shown in this Complaint are of TCL Model 55C807.

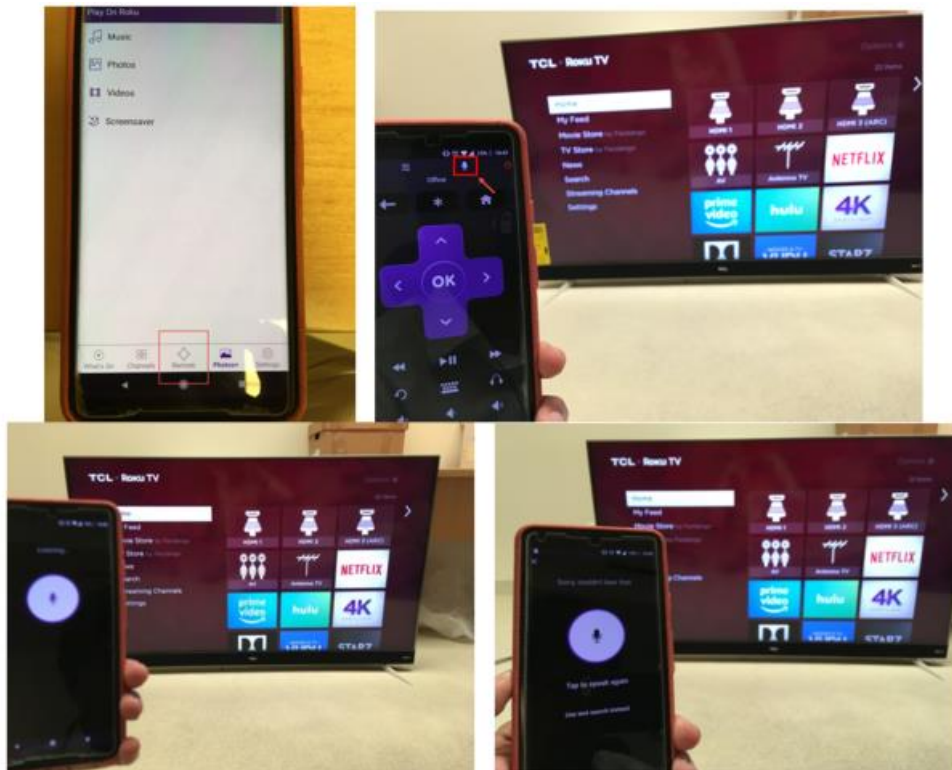
61 As shown below, if a '413 Accused Product does not detect or recognize the voice command, a different form is displayed prompting the user to retry the voice search, or to click one of two options: (1) text search, or (2) cancel the voice control process.



62 If “Text search” is selected, another operation form is displayed, allowing the user to type in text by navigating an on-screen keyboard using the enhanced remote control, as shown below.



63 The operation forms shown above do not display when the voice control button is pressed on a smartphone's virtual remote. Instead, the voice prompt and the operation forms are displayed on the smartphone, not the television, as shown below.



64 If “Use text search instead” is selected, a keyboard appears on the phone, but not on the TV, as shown below.





65 Accordingly, Defendant has infringed and is continuing to infringe the '413 Patent.

66 As a result of Defendant's direct infringement of the '413 Patent, Canon has suffered monetary damages and is entitled to recover from Defendant all damages Canon has sustained as a result of Defendant's direct infringement, including without limitation not less than a reasonable royalty, together with interest and costs as determined by the Court.

67 Defendant's direct infringement of the '413 Patent has caused and is causing damage and irreparable injury to Canon, and Canon will continue to suffer irreparable injury unless and until such infringement is enjoined by this Court.

68 Defendant, moreover, is committing willful infringement of the '413 Patent because Defendant (1) continues to commit direct infringement of the '413 Patent, and (2) has had knowledge of the '413 Patent since (A) at least December 27, 2018, when Canon filed a complaint for infringement of the '413 Patent against TCL Electronics Holding Ltd. or (B), at the latest, from the filing of this Complaint. *See* Ex. 6 (Canon's complaint to TCL in the E.D. Tex.).

**COUNT II**  
**(Induced Infringement of the '413 Patent pursuant to 35 U.S.C. §271(b))**

69 Canon repeats, realleges, and incorporates by reference, as if fully set forth herein, the allegations of the preceding paragraphs.

70 Defendant has induced and is continuing to induce infringement of Claims 1-5, 7-11 of the '413 Patent by encouraging, instructing, directing, and/or requiring third parties – including TCL and end users – to use the '413 Accused Products in a way that directly infringes the '413 Patent, either literally or under the doctrine of equivalents.

71 Each of the '413 Accused Products meets all limitations of the apparatus claims of the '413 Patent. *See* Count I above. Thus, TCL directly infringes the apparatus claims of the '413 Patent by making, selling, offering for sale, and/or using in the United States or importing into the United States the '413 Accused Products. And end users, who use the '413 Accused Products in the United States, also directly infringe the apparatus claims of the '413 Patent.

72 For example, on information and belief, Defendant has a licensing agreement with TCL that allows Defendant to oversee and maintain control of the '413 Accused Products' development – from the development and planning stages all the way through the manufacturing and marketing phases. *See* Ex. 7 (Roku 2018 Form 10-K) at 7 (“Roku TVs integrate our Roku Operating System, or Roku OS, and leverage our smart TV hardware reference design. We work with our TV brand licensees to assist in all phases of the development of Roku TVs, including development, planning, manufacturing and marketing.”). On information and belief, Defendant therefore is responsible for the contents of instructions and manuals included with the '413 Accused Products, which are made available to end users. By making, using, selling, offering to

sell the '413 Accused Products in the U.S. or importing the '413 Accused Products into the U.S., in accordance with the licensing agreement, TCL directly infringes the '413 Patent.

73 Instructions and manuals included with the '413 Accused Products encourage, instruct, and direct end users to use the '413 Accused Products in a particular way. *See* Ex. 8 (TCL C-Series User Guide 8.0); Ex. 9 (TCL C-Series Quick Start Guide). And on information and belief, Defendant provides the contents of these instructions and manuals. Use of the '413 Accused Products, in accordance with such instructions and manuals, directly infringes the '413 Patent. *See* Count I above. Upon information and belief, end users are engaging in such use and are therefore directly infringing the '413 Patent, having been induced to do so by Defendant.

74 Defendant had knowledge of the '413 Patent and the '413 Accused Products' infringement of the '413 Patent or has been willfully blind to such infringement since (A) at least December 27, 2018 when Canon filed a complaint for infringement of the '413 Patent against TCL Electronics Holding Ltd. or (B), at the latest, starting from the filing of this Complaint. *See* Ex. 6 (Canon's complaint to TCL in the E.D. Tex.).

75 Despite this knowledge of the '413 Patent and the '413 Accused Products' infringement of the '413 Patent, Defendant has continued to act with specific intent to induce the infringement of the '413 Patent.

76 Accordingly, Defendant has induced and is continuing to induce infringement of the '413 Patent.

77 As a result of Defendant's induced infringement of the '413 Patent, Canon has suffered monetary damages and is entitled to recover from Defendant all damages Canon has

sustained as a result of Defendant's induced infringement, including without limitation, not less than a reasonable royalty, together with interest and costs as determined by the Court.

78 Defendant's induced infringement of the '413 Patent has caused and is causing damage and irreparable injury to Canon and Canon will continue to suffer irreparable injury unless and until such infringement is enjoined by this Court.

**COUNT III**  
**(Contributory Infringement of the '413 Patent pursuant to 35 U.S.C. §271(c))**

79 Canon repeats, realleges, and incorporates by reference, as if fully set forth herein, the allegations of the preceding paragraphs.

80 Defendant has contributed to and is continuing to contribute to the infringement of Claims 1-5, 7-11 of the '413 Patent by providing the components of the '413 Accused Products to TCL who makes, sells, offers for sale, and/or uses the '413 Accused Products in the United States or imports the '413 Accused Products into the United States. The '413 Accused Products, moreover, are made available to end users who use the '413 Accused Products in the United States.

81 For example, each of the '413 Accused Products meets all limitations of the apparatus claims of the '413 Patent. *See* Count I above. Thus, TCL directly infringes the apparatus claims of the '413 Patent by making, selling, offering for sale, and/or using the '413 Accused Products in the United States, and also importing the '413 Accused Products into the United States. And end users, who use the '413 Accused Products in the United States, also directly infringe the apparatus claims of the '413 Patent.

82 Use of the '413 Accused Products, moreover, infringes the method claims of the '413 Patent because such use leads to the performing of each and every step of the claimed

methods. *See* Count I above. Thus, TCL and end users each directly infringe the method claims of the '413 Patent when using the '413 Accused Products in the United States.

83 The components of the '413 Accused Products that Defendant provides to TCL include, among others, Roku OS, smart TV hardware reference design and instructions directing the development of the '413 Accused Products. *See* Ex. 7 (Roku 2018 Form 10-K) at 7 (“Roku TVs integrate our Roku Operating System, or Roku OS, and leverage our smart TV hardware reference design. We work with our TV brand licensees to assist in all phases of the development of Roku TVs, including development, planning, manufacturing and marketing.”). On information and belief, these components are material to the infringing instrumentalities of the '413 Accused Products and are, consequently, material parts of the invention covered by the '413 Patent. *See* Count I above. Furthermore, on information and belief, these components were especially made or adapted for use in the '413 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use.

84 Defendant had knowledge of the '413 Patent and the '413 Accused Products' infringement of the '413 Patent or has been willfully blind to such infringement since (A) at least December 27, 2018 when Canon filed a complaint for infringement of the '413 Patent against TCL Electronics Holding Ltd. or (B), at the latest, starting from the filing of this Complaint. *See* Ex. 6 (Canon's complaint to TCL in the E.D. Tex.).

85 Accordingly, Defendant has contributed and is contributing to infringement of the '413 Patent.

86 As a result of Defendant's contributory infringement of the '413 Patent, Canon has suffered monetary damages and is entitled to recover from Defendant all damages Canon has

sustained as a result of Defendant's contributory infringement, including without limitation not less than a reasonable royalty, together with interest and costs as determined by the Court.

87 Defendant's contributory infringement of the '413 Patent has caused and is causing damage and irreparable injury to Canon, and Canon will continue to suffer irreparable injury unless and until such infringement is enjoined by this Court.

**COUNT IV**  
**(Direct Infringement of the '767 Patent pursuant to 35 U.S.C. §271(a))**

88 Canon repeats, realleges, and incorporates by reference, as if fully set forth herein, the allegations of the preceding paragraphs.

89 Roku TVs, including without limitations, 3-series TV systems (e.g., Models 32S325, 40S325, 43S325, 49S325, 28S305, 32S301, 32S305, 32S327, 40S303, 40S305, 43S303, 43S305, 49S303, and 49S305), 4-series TV systems (e.g., Models 43S421, 50S421, 55S421, 65S421, 43S423, 75S423, 75S425, 43S403, 43S405, 43S425, 49S403, 49S405, 49S425, 50S423, 50S425, 55S423, 55S425, 55S401, 55S403, 55S405, 65S401, 65S403, 65S405, 65S423 and 65S425), 5-series TV Systems (e.g., Models 43S515, 43S517, 49S515, 49S517, 55S515, 55S517, 65S515 and 65S517), 6-series TV Systems (e.g., Models 75R517, 55R615, 55R617, 65R615, 65R617 and 75R615), P6-series TV Systems (e.g., Models 55P605 and 55P607), and C8-series TV Systems (e.g., Models 55C803, 55C807, 65C807, 75C803 and 75C807), S-series TV systems (e.g., 32S3700, 40FS3750, 65US5800, 55US5800, 32S3700, 40F3750, 32S3750, 28S3750, 32S3850A, 32S3850B, 32S3850P, 32S3850, 55FS3750, 48FS3750, 55FS3850, 50FS3850, 32S3800, 50FS3800, 40FS3800, 40FS3850, 40FS4610R, 48FS3700, 48FS4610R, 55FS3700, 55FS4610R), P-series TV systems (e.g., 55UP130, 43UP130, 50UP130, 55UP120,

50UP120, 43UP120, 49FP110, 43FP110) (collectively “the ‘767 Accused Products”) integrate and make use of the Roku OS and Roku services.

90 Defendant has directly infringed and continues to directly infringe Claims 1-14 of the ‘767 Patent literally and/or under the doctrine of equivalents by selling or offering to sell the ‘767 Accused Products through its own U.S. website at [www.roku.com](http://www.roku.com). *See* Ex. 16 (<https://www.roku.com/products/finder/roku-tv/results>).

91 Defendant has directly infringed and continues to directly infringe Claims 1-14 of the ‘767 Patent literally and/or under the doctrine of equivalents by using the ‘767 Accused Products in the United States during televisions’ research and development, such as when testing the Roku OS and Roku services on the ‘767 Accused Products.

92 Furthermore, Defendant has directly infringed and continues to directly infringe the method claims of the ‘767 Patent literally and/or under the doctrine of equivalents, by conditioning the receiving by TCL of benefits of, for example, using the features in the Roku OS that allow the ‘767 Accused Products to connect to CDNs upon performance of a step or steps of a patented method such as the step of continuing to display and establishing the manner or timing of that performance by providing the Roku OS and its smart TV hardware reference design.

93 Defendant’s acts of using and directing and/or controlling the third parties’ use of the ‘767 Accused Products have been without Canon’s permission, consent, authorization, or license.

94 In particular, the ‘767 Accused Products practice the patented invention of the ‘767 Patent, and the ‘767 Accused Products meets each and every limitation of the apparatus claims of the ‘767 Patent, including the capability to display an image from an external device

for some period of time after being disconnected depending on the external device's type / class and/or how such device is disconnected. Accordingly, use of the '767 Accused Products infringes the apparatus claims of the '767 Patent.

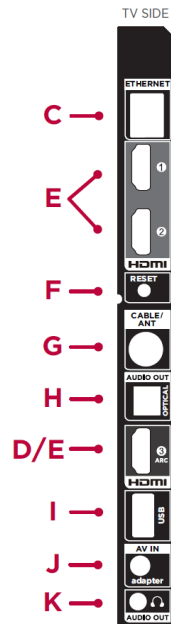
95 Furthermore, the '767 Accused Products practice the patented invention of the '767 Patent, and the use of the '767 Accused Products infringes the method claims of the '767 Patent because such use leads to the performing of each and every steps of the claimed methods, including displaying an image from an external device for some period of time after being disconnected depending on the external device's type / class and/or how such device is disconnected.

96 As a way of illustration, each of the '767 Accused Products has a screen for a display unit and a central processing unit (CPU) for a control unit, and, as shown below, multiple inputs, such as USB and HDMI ports, for connecting and communicating with various external devices.<sup>2</sup>

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<sup>2</sup> Ex. 9 (TCL C-Series Quick Start Guide) at p. 8





97 There are a number of different external devices that may be connected to the '767 Accused Products both wirelessly and via cables, including Blu-ray players, laptop computers, cameras, gaming systems, smartphones, DVRs, Cloud DVRs and CDNs. For example, Cloud DVRs and CDNs can be connected to the '767 Accused Products wirelessly via Internet:

## Preparing for Internet connectivity

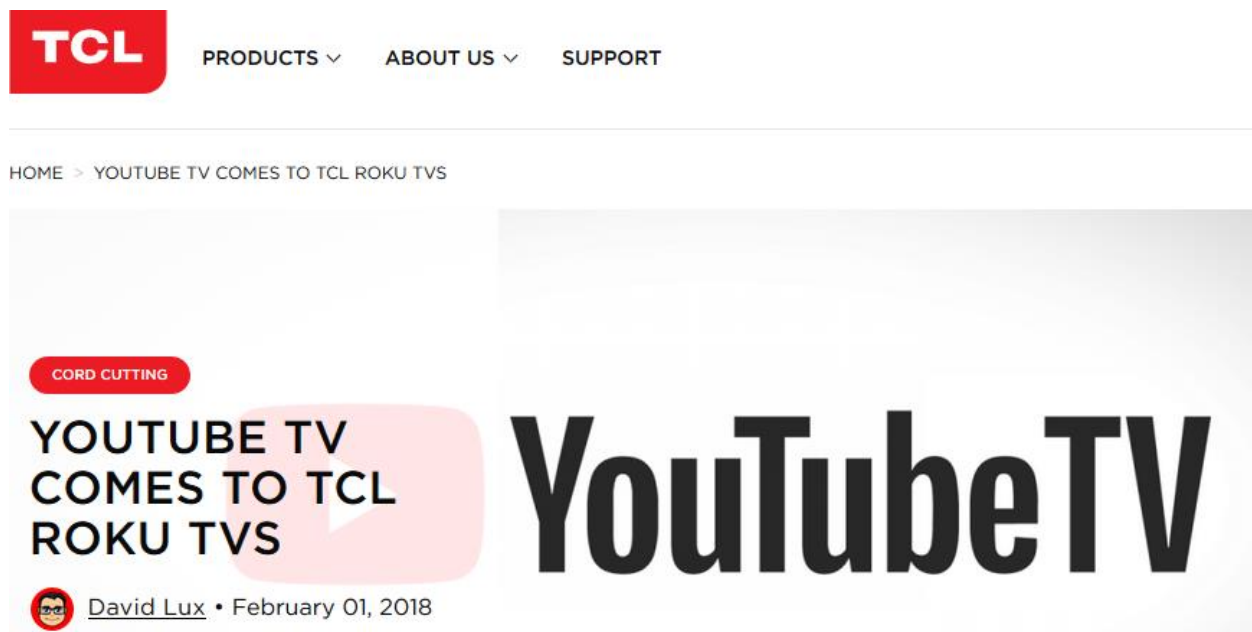
If you want to watch streaming content and take advantage of the cool features of your TCL • Roku TV, connect it to the Internet through a wireless modem/router or a wireless access point (not provided). The TV has a built-in wireless LAN adapter.

Ex. 8 ([https://www.tclusa.com/sites/default/files/2017-12/8.0 User Manual C Series Final 1.pdf](https://www.tclusa.com/sites/default/files/2017-12/8.0%20User%20Manual%20C%20Series%20Final%201.pdf)) at 11.

## Add streaming channels

You can add streaming channels by searching in the Roku Channel Store. New streaming channels are added to the bottom of the Home screen. If you want to move the channel tile to a different position in the grid, see [Rearrange tiles](#).

Ex. 10 (<https://www.tclusa.com/sites/default/files/2017-12/8.0 User Manual S Series Final 4.pdf>) at 85.




With YouTube TV, you can enjoy live, cable-free TV without a set top box. From live sports to breaking news, watch all your favorite content from dozens of your favorite networks. Plus, it comes with unlimited cloud DVR storage—record live TV and never run out of storage!

Ex. 11 (<https://www.tclusa.com/blog/youtube-tv-streaming-channel>).

98 As a further example, a smartphone can be wirelessly connected to the '767 Accused Products and display certain streaming contents provided by CDNs such as YouTube and Netflix onto the Accused Products' display unit through screen casting technology:

## How do I cast apps like YouTube or Netflix from my phone to my TV?

### Background

You can of course launch channels directly from your Roku streaming player or Roku TV™, but on some occasions, you may want to direct, or **cast**, to your TV what you are already watching on your mobile device. You can do this wirelessly with supported apps like YouTube and Netflix by opening the casting icon  on your phone or tablet and selecting your Roku device. The channel will launch automatically on your Roku device and playback will begin.

Ex. 12 (<https://support.roku.com/article/360002990094-how-do-i-cast-apps-like-youtube-or-netflix-from-my-phone-to-my-tv->).

99 The '767 Accused Products display images from these external devices, which send the images through the ports or wireless connection. The '767 Accused Products' CPUs cause the images received from the external devices to be displayed on the screen. Upon information and belief, the '767 Accused Products' CPUs acquire class information indicating a class of the external device from the external device and control the display unit to continue or end the display based on the data received from the external device at the time of disconnection of the communication connection with the external device if the class of the external device indicated by the class information is a predetermined class.

100 For example, when certain external devices are disconnected, the '767 Accused Products continue to display the image being displayed at the time of the disconnection. For other external devices, the '767 Accused Products immediately discontinue displaying the image upon disconnection. For example, when a laptop connected to the '767 Accused Products' USB or HDMI port is disconnected, the display of the image from the laptop will cease.

Contrastingly, images displayed by streaming content via CDNs or Cloud DVRs on the '767

Accused Products obtained over the wireless connection continue to display for a period of time after disconnecting the wireless network. Upon and information and belief each '767 Accused Product contains a CPU and software that perform these functions.

101 Accordingly, Defendant has infringed and is continuing to infringe the '767 Patent.

102 As a result of Defendant's infringement of the '767 Patent, Canon has suffered monetary damages and is entitled to recover from Defendant all damages Canon has sustained as a result of Defendant's infringement, including without limitation not less than a reasonable royalty, together with interest and costs as determined by the Court.

103 Defendant's infringement of the '767 Patent has caused and is causing damage and irreparable injury to Canon, and Canon will continue to suffer irreparable injury unless and until such infringement is enjoined by this Court.

104 Defendant, moreover, is committing willful infringement of the '767 Patent because Defendant (1) continues to commit direct infringement of the '767 Patent, and (2) has had knowledge of the '767 Patent since at least December 27, 2018, when Canon filed a complaint for infringement of the '767 Patent against TCL Electronics Holding Ltd. or – at the latest – from the filing of this Complaint. *See* Ex. 6 (Canon's complaint to TCL in the E.D. Tex.).

**COUNT V**  
**(Induced Infringement of the '767 Patent pursuant to 35 U.S.C. §271(b))**

105 Canon repeats, realleges, and incorporates by reference, as if fully set forth herein, the allegations of the preceding paragraphs.

106 Defendant has induced and is continuing to induce infringement of Claims 1-14 of the '767 Patent by encouraging, instructing, directing, and/or requiring third parties – including TCL and end users – to use the '767 Accused Products in a way that directly infringes the '767 Patent, either literally or under the doctrine of equivalents.

107 Each of the '767 Accused Products meets all limitations of the apparatus claims of the '767 Patent. *See* Count IV above. Thus, TCL directly infringes the apparatus claims of the '767 Patent by making, selling, offering for sale, and/or using the '767 Accused Products in the United States, and also importing the '767 Accused Products into the United States. And end users who use the '767 Accused Products in the United States also directly infringe the apparatus claims of the '767 Patent.

108 For example, on information and belief, Defendant has a licensing agreement with TCL that allows Defendant to oversee and maintain control of the '767 Accused Products' development – from the development and planning stages all the way through the manufacturing and marketing phases. *See* Ex. 7 (Roku 2018 Form 10-K) at 7 (“Roku TVs integrate our Roku Operating System, or Roku OS, and leverage our smart TV hardware reference design. We work with our TV brand licensees to assist in all phases of the development of Roku TVs, including development, planning, manufacturing and marketing.”). On information and belief, Defendant therefore is responsible for the content of instructions and manuals included with the '767 Accused Products, which are made available to end users. By making, using, selling, offering to sell the '767 Accused Products in the U.S. or importing the '767 Accused Products to the U.S., in accordance to the licensing agreement, TCL directly infringes the '767 Patent.

109 Instructions and manuals for the '767 Accused Products encourage, instruct, and direct end users to use the '767 Accused Products in a particular way. *See* Ex. 8 (TCL C-Series User Guide 8.0); Ex. 9 (TCL C-Series Quick Start Guide); Ex. 11 (<https://www.tclusa.com/blog/youtube-tv-streaming-channel>); Ex. 13 (<https://www.tclusa.com/blog/how-to-watch-local-channels-without-cable>); Ex. 14 (<https://www.tclusa.com/blog/essential-cord-cutting-apps>); Ex. 15 (<https://www.tclusa.com/products/home-theater/c-series/tcl-55-class-c-series-4k-uhd-hdr-roku-smart-tv-55c807>). Use of the '767 Accused Products, in accordance with such instructions and manuals, directly infringes the '767 Patent. *See* Count IV above.

110 Defendant had knowledge of the '767 Patent and the '767 Accused Products' infringement of the '767 Patent or has been willfully blind to such infringement since (A) at least December 27, 2018 when Canon filed a complaint for infringement of the '767 Patent against TCL Electronics Holding Ltd. or (B), at the latest, starting from the filing of this Complaint. *See* Ex. 6 (Canon's complaint to TCL in the E.D. Tex.).

111 Despite the knowledge of the '767 Patent and the '767 Accused Products' infringement of the '767 Patent, Defendant has continued to act with specific intent to induce the infringement of the '767 Patent.

112 Accordingly, Defendant has induced and is continuing to induce infringement of the '767 Patent.

113 As a result of Defendant's induced infringement of the '767 Patent, Canon has suffered monetary damages and is entitled to recover from Defendant all damages Canon has

sustained as a result of Defendant's induced infringement, including without limitation not less than a reasonable royalty, together with interest and costs as determined by the Court.

114 Defendant's inducing infringement of the '767 Patent has caused and is causing damage and irreparable injury to Canon, and Canon will continue to suffer irreparable injury unless and until such infringement is enjoined by this Court.

**COUNT VI**  
**(Contributory Infringement of the '767 Patent pursuant to 35 U.S.C. §271(c))**

115 Canon repeats, realleges, and incorporates by reference, as if fully set forth herein, the allegations of the preceding paragraphs.

116 Defendant has contributed to and is continuing to contribute to the infringement of Claims 1-14 of the '767 Patent by providing the components of the '767 Accused Products to TCL, who makes, sells, offers for sale, and/or uses the '767 Accused Products in the United States and also imports the '767 Accused Products into the United States. The '767 Accused Products, moreover, are made available to end users who use the '767 Accused Products in the United States.

117 For example, each of the '767 Accused Products meets all limitations of the apparatus claims of the '767 Patent. *See* Count IV above. Thus, TCL directly infringes the apparatus claims of the '767 Patent by making, selling, offering for sale, and/or using the '767 Accused Products in the United States, and also importing the '767 Accused Products into the United States. And end users who use the '767 Accused Products in the United States also directly infringe the apparatus claims of the '767 Patent.

118 Use of the '767 Accused Products, moreover, infringes the method claims of the '767 Patent because such use leads to the performing of each and every step of the claimed

methods. *See* Count IV above. Thus, TCL and end users each directly infringe the method claims of the '767 Patent when using the '767 Accused Products in the United States.

119 The components of the '767 Accused Products that Defendant provides to TCL include, among others, Roku OS, smart TV hardware reference design, instructions directing the development of the '767 Accused Products. *See* Ex. 7 (Roku 2018 Form 10-K) at 7 (“Roku TVs integrate our Roku Operating System, or Roku OS, and leverage our smart TV hardware reference design. We work with our TV brand licensees to assist in all phases of the development of Roku TVs, including development, planning, manufacturing and marketing.”). On information and belief, these components are material to the infringing instrumentalities of the '767 Accused Products and are, consequently, material parts of the invention covered by the '767 Patent. *See* Count IV above. Furthermore, on information and belief, these components are especially made or adapted for use in the '767 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use.

120 Defendant had knowledge of the '767 Patent and the '767 Accused Products' infringement of the '767 Patent or has been willfully blind to such since (A) at least December 27, 2018 when Canon filed a complaint for infringement of the '767 Patent against TCL Electronics Holding Ltd. or (B), at the latest, starting from the filing of this Complaint. *See* Ex. 6 (Canon's complaint to TCL in the E.D. Tex.).

121 Accordingly, Defendant has contributed and is contributing to infringement of the '767 Patent.

122 As a result of Defendant's contributory infringement of the '767 Patent, Canon has suffered monetary damages and is entitled to recover from Defendant all damages Canon has



sustained as a result of Defendant's inducing infringement, including without limitation not less than a reasonable royalty, together with interest and costs as determined by the Court.

123 Defendant's contributory infringement of the '767 Patent has caused and is causing damage and irreparable injury to Canon and Canon will continue to suffer irreparable injury unless and until such infringement is enjoined by this Court.

**COUNT VII**  
**(Direct Infringement of the '986 Patent pursuant to 35 U.S.C. §271(a))**

124 Canon repeats, realleges, and incorporates by reference, as if fully set forth herein, the allegations of the preceding paragraphs.

125 Roku TVs, including without limitations, 3-series TV systems (e.g., Models 32S325, 40S325, 43S325, 49S325, 28S305, 32S301, 32S305, 32S327, 40S303, 40S305, 43S303, 43S305, 49S303, and 49S305), 4-series TV systems (e.g., Models 43S421, 50S421, 55S421, 65S421, 43S423, 75S423, 75S425, 43S403, 43S405, 43S425, 49S403, 49S405, 49S425, 50S423, 50S425, 55S423, 55S425, 55S401, 55S403, 55S405, 65S401, 65S403, 65S405, 65S423 and 65S425), 5-series TV Systems (e.g., Models 43S515, 43S517, 49S515, 49S517, 55S515, 55S517, 65S515 and 65S517), 6-series TV Systems (e.g., Models 75R517, 55R615, 55R617, 65R615, 65R617 and 75R615), P6-series TV Systems (e.g., Models 55P605 and 55P607), and C8-series TV Systems (e.g., Models 55C803, 55C807, 65C807, 75C803 and 75C807), S-series TV systems (e.g., 32S3700, 40FS3750, 65US5800, 55US5800, 32S3700, 40F3750, 32S3750, 28S3750, 32S3850A, 32S3850B, 32S3850P, 32S3850, 55FS3750, 48FS3750, 55FS3850, 50FS3850, 32S3800, 50FS3800, 40FS3800, 40FS3850, 40FS4610R, 48FS3700, 48FS4610R, 55FS3700, 55FS4610R), P-series TV systems (e.g., 55UP130, 43UP130, 50UP130, 55UP120,

50UP120, 43UP120, 49FP110, 43FP110) (collectively “the ‘986 Accused Products”) integrate and make use of the Roku OS and Roku services.

126 Defendant has directly infringed and continues to directly infringe Claims 1-11 of the ‘986 Patent literally and/or under the doctrine of equivalents by selling or offering to sell the ‘986 Accused Products through its own U.S. website at [www.roku.com](http://www.roku.com). *See* Ex. 16 (<https://www.roku.com/products/finder/roku-tv/results>).

127 Defendant has directly infringed and continues to directly infringe Claims 1-11 of the ‘986 Patent literally and/or under the doctrine of equivalents by using the ‘986 Accused Products in the United States during televisions’ research and development, such as when testing the Roku OS and Roku services on ‘986 Accused Products.

128 Furthermore, Defendant has directly infringed and continues to directly infringe the method claims of the ‘986 Patent literally and/or under the doctrine of equivalents, by conditioning the receiving by TCL of benefits of, for example, using the features within the Roku OS that allow the ‘986 Accused Products to connect to CDNs upon performance of a step or steps of a patented method, such as the step of continuing to display, and establishing the manner or timing of that performance by providing the Roku OS and its smart TV hardware reference design.

129 Defendant’s acts of using and directing and/or controlling the third parties’ use of the ‘986 Accused Products have been without Canon’s permission, consent, authorization, or license.

130 In particular, the ‘986 Accused Products practice the patented invention of the ‘986 Patent, and the ‘986 Accused Products meet each and every limitation of the apparatus

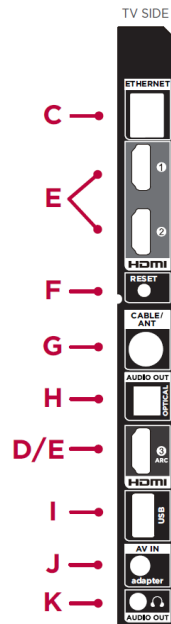
claims of the '986 Patent, including the capability to display an image from an external device for some period of time after being disconnected depending on the external device's type / class and/or how such device is disconnected. Accordingly, use of the '986 Accused Products infringes the apparatus claims of the '986 Patent.

131 Furthermore, the '986 Accused Products practice the patented invention of the '986 Patent, and the use of the '986 Accused Products infringes the method claims of the '986 Patent because such use leads to the performing of each and every step of the claimed methods, including the displaying of an image from an external device for some period of time after being disconnected depending on the external device's type / class and/or how such device is disconnected.

132 As a way of illustration, each of the '986 Accused Products has a screen as its display unit, and, as shown below, a communication unit configured to connect to and communicate with a wide variety of external devices.<sup>3</sup>

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<sup>3</sup> Ex. 9 (TCL C-Series Quick Start Guide) at p. 8



133 There are a number of different external devices that may be connected to the '986 Accused Products both wirelessly and via cables, including Blu-ray players, laptop computers, cameras, gaming systems, smartphones, DVRs, Cloud DVRs and CDNs. For example, Cloud DVRs and CDNs can be connected to the '986 Accused Products wirelessly via Internet:

## Preparing for Internet connectivity

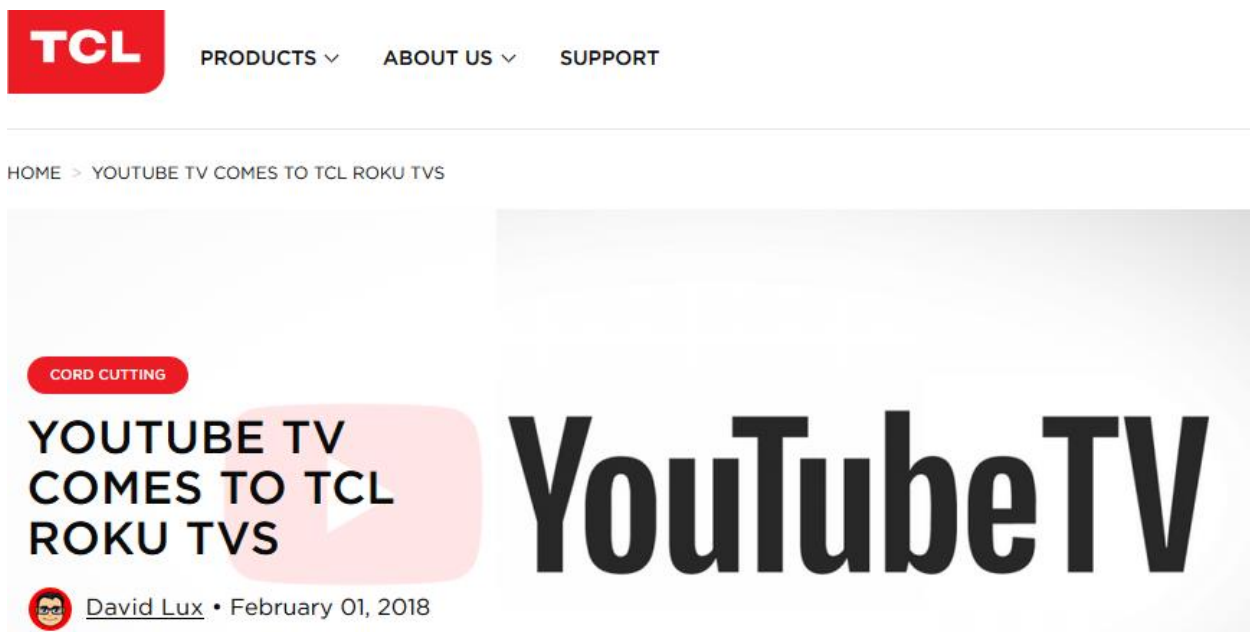
If you want to watch streaming content and take advantage of the cool features of your TCL • Roku TV, connect it to the Internet through a wireless modem/router or a wireless access point (not provided). The TV has a built-in wireless LAN adapter.

Ex. 8 ([https://www.tclusa.com/sites/default/files/2017-12/8.0 User Manual C Series Final 1.pdf](https://www.tclusa.com/sites/default/files/2017-12/8.0%20User%20Manual%20C%20Series%20Final%201.pdf)) at 11.

## Add streaming channels

You can add streaming channels by searching in the Roku Channel Store. New streaming channels are added to the bottom of the Home screen. If you want to move the channel tile to a different position in the grid, see [Rearrange tiles](#).

Ex. 10 (<https://www.tclusa.com/sites/default/files/2017-12/8.0 User Manual S Series Final 4.pdf>) at 85.




With YouTube TV, you can enjoy live, cable-free TV without a set top box. From live sports to breaking news, watch all your favorite content from dozens of your favorite networks. Plus, it comes with unlimited cloud DVR storage—record live TV and never run out of storage!

Ex. 11 (<https://www.tclusa.com/blog/youtube-tv-streaming-channel>).

134 As a further example, a smartphone can be wirelessly connected to the '986 Accused Products and display certain streaming contents provided by CDNs such as YouTube and Netflix through screen casting technology:

## How do I cast apps like YouTube or Netflix from my phone to my TV?

### Background

You can of course launch channels directly from your Roku streaming player or Roku TV™, but on some occasions, you may want to direct, or **cast**, to your TV what you are already watching on your mobile device. You can do this wirelessly with supported apps like YouTube and Netflix by opening the casting icon  on your phone or tablet and selecting your Roku device. The channel will launch automatically on your Roku device and playback will begin.

Ex. 12 (<https://support.roku.com/article/360002990094-how-do-i-cast-apps-like-youtube-or-netflix-from-my-phone-to-my-tv->).

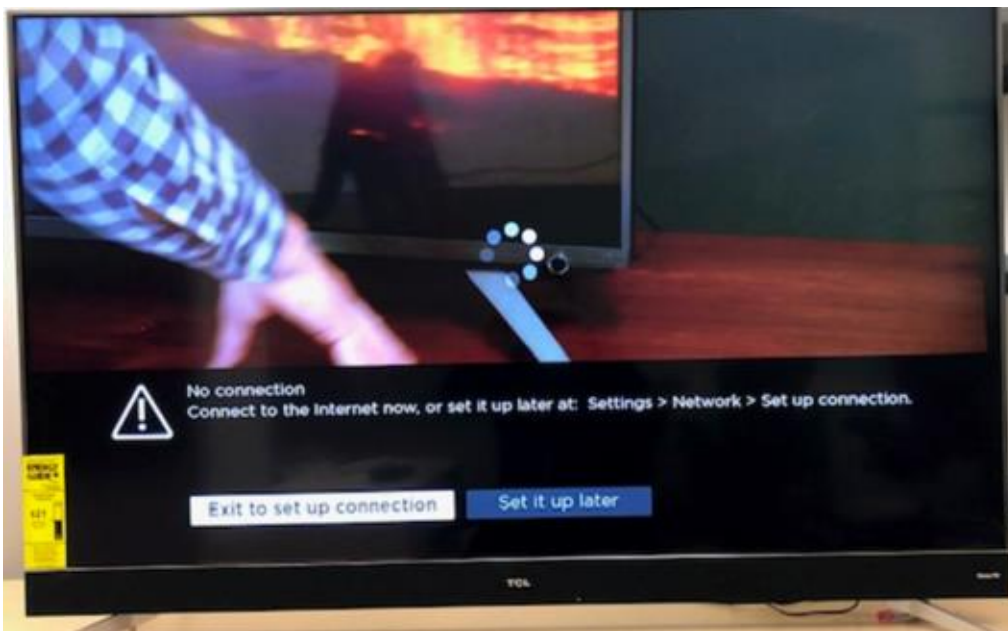
135 The '986 Accused Products display images from these external devices, which send the images through the ports or wireless connection. The '986 Accused Products' CPUs cause the images received from the external devices to be displayed on the screen.

136 Upon information and belief, the '986 Accused Products have a storing unit configured to store information for controlling whether or not to continue the display of the image being displayed by the display unit when the communication is disconnected, a determination unit configured to determine whether or not to continue the display of the image received from the external device by comparing the type of the external device involving the communication such as the type, or class, of external devices from which information was sent as well as a control unit that controls whether or not to continue the display of the image being displayed by the display unit when the communication is disconnected in accordance with the determination result by the determination unit.

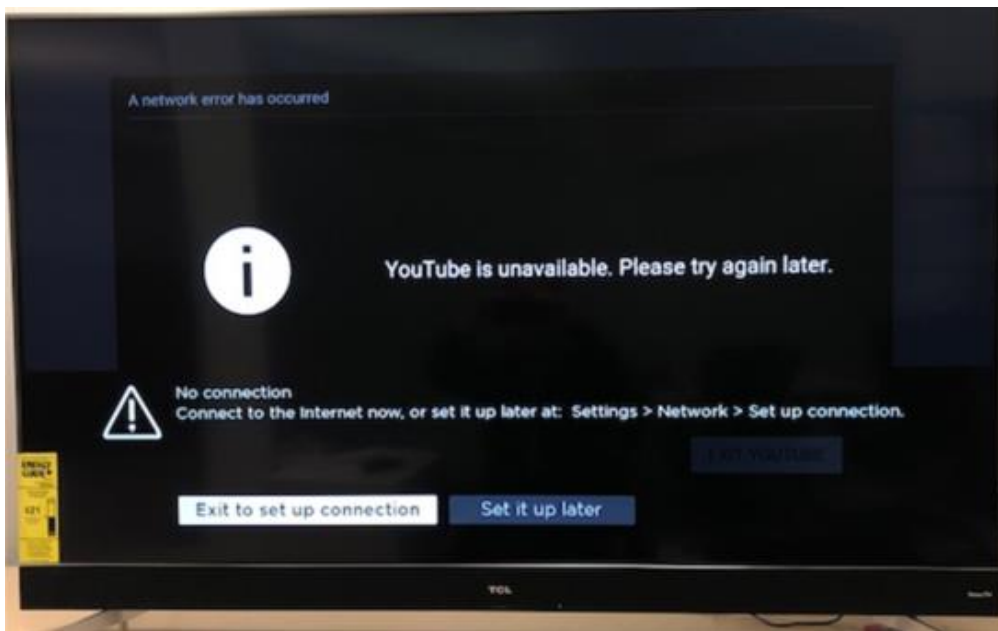
137 For example, when certain external devices are disconnected physically, the '986 Accused Products continue to display the image being displayed at the time of the disconnection.

When CDNs or Cloud DVRs are physically disconnected by, for example, switching off the router and shutting down wifi network that connected the '986 Accused Products and the CDNs or Cloud DVRs, the '986 Accused Products continue to display the streamed contents for a period of time after disconnection.

138 For another example, when the '986 Accused Product is connected via Ethernet cable and not via wifi, CDNs such as YouTube can be physically disconnected from the '986 Accused Products by unplugging the Ethernet cable that connected the '986 Accused Products to a router or modem. After unplugging the Ethernet cable, as shown below, the '986 Accused Products continue to display YouTube video contents for a certain period until they proceed to show a black banner at the bottom of the screen indicating that there is no longer connection.



139 And after another period, as shown below, the Accused TVs proceed to overwrite the screen with a black page with white letters stating that “A network error has occurred.”



140 Contrastingly, when external devices are disconnected logically, the ‘986 Accused Products immediately discontinue displaying the image upon disconnection. When CDNs or Cloud DVRs are logically disconnected from the ‘986 Accused Products by operating remote controllers and sending computer instructions to the ‘986 Accused Products and to CDNs or Cloud DVRs requesting closing of communication sessions between the CDNs or Cloud DVRs and the ‘986 Accused Products, the ‘986 Accused Products immediately terminate the display of the streamed contents.

141 Accordingly, Defendant has infringed and is continuing to infringe the ‘986 Patent.

142 As a result of Defendant’s infringement of the ’986 Patent, Canon has suffered monetary damages and is entitled to recover from Defendant all damages Canon has sustained as a result of Defendant’s infringement, including without limitation not less than a reasonable royalty, together with interest and costs as determined by the Court.



143 Defendant's infringement of the '986 Patent has caused and is causing damage and irreparable injury to Canon and Canon will continue to suffer irreparable injury unless and until such infringement is enjoined by this Court.

144 Defendant, moreover, is committing willful infringement of the '986 Patent because Defendant (1) continues to commit direct infringement of the '986 Patent, and (2) has had knowledge of the '986 Patent since at least December 27, 2018, when Canon filed a complaint for infringement of the '986 Patent against TCL Electronics Holding Ltd. or – at the latest – from the filing of this Complaint. *See* Ex. 6 (Canon's complaint to TCL in the E.D. Tex.).

**COUNT VIII**  
**(Induced Infringement of the '986 Patent pursuant to 35 U.S.C. §271(b))**

145 Canon repeats, realleges, and incorporates by reference, as if fully set forth herein, the allegations of the preceding paragraphs.

146 Defendant has induced and is continuing to induce infringement of Claims 1-11 of the '986 Patent by encouraging, instructing, directing, and/or requiring third parties – including TCL and end users – to use the '986 Accused Products in a way that directly infringes the '986 Patent, either literally or under the doctrine of equivalents.

147 Each of the '986 Accused Products meets all limitations of the apparatus claims of the '986 Patent. *See* Count VII above. Thus, TCL directly infringes the apparatus claims of the '986 Patent by making, selling, offering for sale, and/or using the '986 Accused Products in the United States, and also importing the '986 Accused Products into the United States. And end users who use the '986 Accused Products in the United States also directly infringe the apparatus claims of the '986 Patent.

148 For example, on information and belief, Defendant has a licensing agreement with TCL that allows Defendant to oversee and maintain control of the '986 Accused Products' development – from the development and planning stages all the way through the manufacturing and marketing phases. *See* Ex. 7 (Roku 2018 Form 10-K) at 7 (“Roku TVs integrate our Roku Operating System, or Roku OS, and leverage our smart TV hardware reference design. We work with our TV brand licensees to assist in all phases of the development of Roku TVs, including development, planning, manufacturing and marketing.”). On information and belief, Defendant therefore is responsible for the content of instructions and manuals included with the '986 Accused Products which are made available to end users. By making, using, selling, offering to sell the '986 Accused Products in the U.S. or importing the '986 Accused Products to the U.S., in accordance with the licensing agreement, TCL directly infringes the '986 Patent.

149 Instructions and manuals for the '986 Accused Products encourage, instruct, and direct end users to use the '986 Accused Products in a particular way. *See* Ex. 8 (TCL C-Series User Guide 8.0); Ex. 9 (TCL C-Series Quick Start Guide); Ex. 11 (<https://www.tclusa.com/blog/youtube-tv-streaming-channel>); Ex. 13 (<https://www.tclusa.com/blog/how-to-watch-local-channels-without-cable>); Ex. 14 (<https://www.tclusa.com/blog/essential-cord-cutting-apps>); Ex. 15 (<https://www.tclusa.com/products/home-theater/c-series/tcl-55-class-c-series-4k-uhd-hdr-roku-smart-tv-55c807>). Use of the '986 Accused Products, in accordance with such instructions and manuals, directly infringes the '986 Patent. *See* Count VII above. Upon information and belief, end users are engaging in such use and are therefore directly infringing the '986 Patent.

150 Defendant had knowledge of the '986 Patent and the '986 Accused Products' infringement of the '986 Patent or has been willfully blind to such infringement since (A) at least December 27, 2018 when Canon filed a complaint for infringement of the '986 Patent against TCL Electronics Holding Ltd. or (B), at the latest, starting from the filing of this Complaint. *See* Ex. 6 (Canon's complaint to TCL in the E.D. Tex.).

151 Despite the knowledge of the '986 Patent and the '986 Accused Products' infringement of the '986 Patent, Defendant has continued to act with specific intent to induce the infringement of the '986 Patent.

152 Accordingly, Defendant has induced and is continuing to induce infringement of the '986 Patent.

153 As a result of Defendant's inducing infringement of the '986 Patent, Canon has suffered monetary damages and is entitled to recover from Defendant all damages Canon has sustained as a result of Defendant's inducing infringement, including without limitation not less than a reasonable royalty, together with interest and costs as determined by the Court.

154 Defendant's inducing infringement of the '986 Patent has caused and is causing damage and irreparable injury to Canon, and Canon will continue to suffer irreparable injury unless and until such infringement is enjoined by this Court.

**COUNT IX**  
**(Contributory Infringement of the '986 Patent pursuant to 35 U.S.C. §271(c))**

155 Canon repeats, realleges and incorporates by reference, as if fully set forth herein, the allegations of the preceding paragraphs.

156 Defendant has contributed to and is continuing to contribute to the infringement of Claims 1-11 of the '986 Patent by providing the components of the '986 Accused Products to

TCL, who makes, sells, offers for sale, and/or uses the '986 Accused Products in the United States and also imports the '986 Accused Products into the United States. The '986 Accused Products, moreover, are made available to end users who use the '986 Accused Products in the United States.

157 For example, each of the '986 Accused Products meets all limitations of the apparatus claims of the '986 Patent. *See* Count VII above. Thus, TCL directly infringes the apparatus claims of the '986 Patent by making, selling, offering for sale, and/or using the '986 Accused Products in the United States, and also importing the '986 Accused Products into the United States. And end users who use the '986 Accused Products in the United States also directly infringe the apparatus claims of the '986 Patent.

158 Use of the '986 Accused Products, moreover, infringes the method claims of the '986 Patent because such use leads to the performing of each and every step of the claimed methods. *See* Count VII above. Thus, TCL and end users each directly infringes the method claims of the '986 Patent when using the '986 Accused Products in the United States.

159 The components of the '986 Accused Products that Defendant provides to TCL include, among others, the Roku OS, smart TV hardware reference design, and instructions directing the development of the '986 Accused Products. *See* Ex. 7 (Roku 2018 Form 10-K) at 7 (“Roku TVs integrate our Roku Operating System, or Roku OS, and leverage our smart TV hardware reference design. We work with our TV brand licensees to assist in all phases of the development of Roku TVs, including development, planning, manufacturing and marketing.”). On information and belief, these components are material to the infringing instrumentalities of the '986 Accused Products and are, consequently, material parts of the invention covered by the

'986 Patent. *See* Count VII above. Furthermore, on information and belief, these components are especially made or adapted for use in the '986 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use.

160 Defendant had knowledge of the '986 Patent and the '986 Accused Products' infringement of the '986 Patent or has been willfully blind to such infringement since (A) at least December 27, 2018 when Canon filed a complaint for infringement of the '986 Patent against TCL Electronics Holding Ltd. or (B), at the latest, starting from the filing of this Complaint. *See* Ex. 6 (Canon's complaint to TCL in the E.D. Tex.).

161 Accordingly, Defendant has contributed and is contributing to infringement of the '986 Patent.

162 As a result of Defendant's contributory infringement of the '986 Patent, Canon has suffered monetary damages and is entitled to recover from Defendant all damages Canon has sustained as a result of Defendant's inducing infringement, including without limitation not less than a reasonable royalty, together with interest and costs as determined by the Court.

163 Defendant's contributory infringement of the '986 Patent has caused and is causing damage and irreparable injury to Canon, and Canon will continue to suffer irreparable injury unless and until such infringement is enjoined by this Court.

**COUNT X**  
**(Direct Infringement of the '206 Patent pursuant to 35 U.S.C. §271(a))**

164 Canon repeats, realleges, and incorporates by reference, as if fully set forth herein, the allegations of the preceding paragraphs.

165 Roku TVs, including without limitations, 3-series TV systems (e.g., Models 32S325, 40S325, 43S325, 49S325, 28S305, 32S301, 32S305, 32S327, 40S303, 40S305, 43S303,

43S305, 49S303, and 49S305), 4-series TV systems (e.g., Models 43S421, 50S421, 55S421, 65S421, 43S423, 75S423, 75S425, 43S403, 43S405, 43S425, 49S403, 49S405, 49S425, 50S423, 50S425, 55S423, 55S425, 55S401, 55S403, 55S405, 65S401, 65S403, 65S405, 65S423 and 65S425), 5-series TV Systems (e.g., Models 43S515, 43S517, 49S515, 49S517, 55S515, 55S517, 65S515 and 65S517), 6-series TV Systems (e.g., Models 75R517, 55R615, 55R617, 65R615, 65R617 and 75R615), P6-series TV Systems (e.g., Models 55P605 and 55P607), and C8-series TV Systems (e.g., Models 55C803, 55C807, 65C807, 75C803 and 75C807), S-series TV systems (e.g., 32S3700, 40FS3750, 65US5800, 55US5800, 32S3700, 40F3750, 32S3750, 28S3750, 32S3850A, 32S3850B, 32S3850P, 32S3850, 55FS3750, 48FS3750, 55FS3850, 50FS3850, 32S3800, 50FS3800, 40FS3800, 40FS3850, 40FS4610R, 48FS3700, 48FS4610R, 55FS3700, 55FS4610R), P-series TV systems (e.g., 55UP130, 43UP130, 50UP130, 55UP120, 50UP120, 43UP120, 49FP110, 43FP110) (collectively “the ‘206 Accused Products”) integrate and make use of the Roku OS and Roku services.

166 Defendant has directly infringed and continues to directly infringe Claims 1-14 of the ’206 Patent literally and/or under the doctrine of equivalents by selling or offering to sell the ’206 Accused Products through its own U.S. website at [www.roku.com](http://www.roku.com). *See* Ex. 16 (<https://www.roku.com/products/finder/roku-tv/results>).

167 Defendant has directly infringed and continues to directly infringe Claims 1-14 of the ’206 Patent literally and/or under the doctrine of equivalents by using the ’206 Accused Products in the United States during the televisions’ research and development, such as when testing the Roku OS and Roku services on ’206 Accused Products.

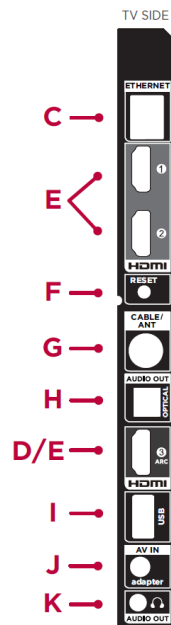
168 Furthermore, Defendant has directly infringed and continues to directly infringe the method claims of the '206 Patent literally and/or under the doctrine of equivalents, by conditioning the receiving by TCL of benefits of, for example, using the features within the Roku OS that allow the '206 Patent to connect to CDNs, upon performance of a step or steps of a patented method, such as a displaying step, and establishing the manner or timing of that performance by providing the Roku OS and its smart TV hardware reference design.

169 Defendant's acts of using and directing and/or controlling the third parties' use of the '206 Accused Products have been without Canon's permission, consent, authorization, or license.

170 In particular, the '206 Accused Products practice the patented invention of the '206 Patent, and the '206 Accused Products meet each and every limitation of the apparatus claims of the '206 Patent, including the capability to display an image from an external device for some period of time after being disconnected (and varying the timing to discontinue such displaying) depending on the external device's type and/or how such device is disconnected. Accordingly, use of the '206 Accused Products infringes the apparatus claims of the '206 Patent.

171 Furthermore, the '206 Accused Products practice the patented invention of the '206 Patent, and the use of the '206 Accused Products infringes the method claims of the '206 Patent because such use leads to the performing of each and every step of the claimed methods, including the displaying of an image from an external device for some period of time after being disconnected (and varying the timing to discontinue such displaying) depending on the external device's type and/or how such device is disconnected.

172 As a way of illustration, each of the '206 Accused Products has a screen as its display unit, and, as shown below, a communication unit configured to connect to and communicate with a wide variety of external devices.<sup>4</sup>



173 There are a number of different external devices that may be connected to the '206 Accused Products both wirelessly and via cables, including Blu-ray players, laptop computers, cameras, gaming systems, smartphones, DVRs, Cloud DVRs and CDNs. For example, Cloud DVRs and CDNs can be connected to the '206 Accused Products wirelessly via Internet:

## Preparing for Internet connectivity

If you want to watch streaming content and take advantage of the cool features of your TCL • Roku TV, connect it to the Internet through a wireless modem/router or a wireless access point (not provided). The TV has a built-in wireless LAN adapter.

<sup>4</sup> Ex. 9 (TCL C-Series Quick Start Guide) at p. 8

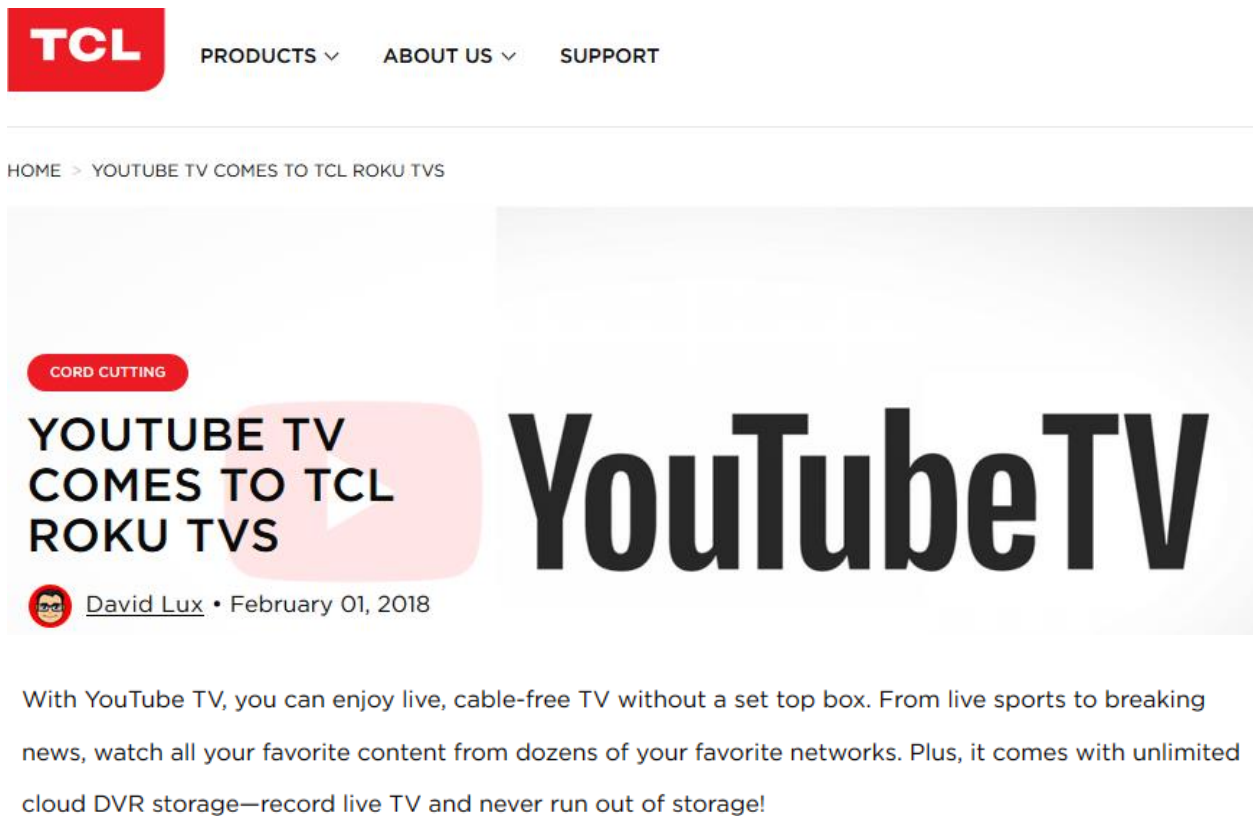


Ex. 8 ([https://www.tclusa.com/sites/default/files/2017-12/8.0\\_User\\_Manual\\_C\\_Series\\_Final\\_1.pdf](https://www.tclusa.com/sites/default/files/2017-12/8.0_User_Manual_C_Series_Final_1.pdf)) at 11.

## Add streaming channels

You can add streaming channels by searching in the Roku Channel Store. New streaming channels are added to the bottom of the Home screen. If you want to move the channel tile to a different position in the grid, see [Rearrange tiles](#).

Ex. 10 ([https://www.tclusa.com/sites/default/files/2017-12/8.0\\_User\\_Manual\\_S\\_Series\\_Final\\_4.pdf](https://www.tclusa.com/sites/default/files/2017-12/8.0_User_Manual_S_Series_Final_4.pdf)) at 85.




The screenshot shows the TCL website's navigation bar with the TCL logo and links for PRODUCTS, ABOUT US, and SUPPORT. Below the navigation bar is a breadcrumb trail: HOME > YOUTUBE TV COMES TO TCL ROKU TVS. The main content area features a large banner for the blog post "YOUTUBE TV COMES TO TCL ROKU TVS" by David Lux, dated February 01, 2018. The banner includes a "CORD CUTTING" tag and a large YouTube TV logo. Below the banner, the text reads: "With YouTube TV, you can enjoy live, cable-free TV without a set top box. From live sports to breaking news, watch all your favorite content from dozens of your favorite networks. Plus, it comes with unlimited cloud DVR storage—record live TV and never run out of storage!"

Ex. 11 (<https://www.tclusa.com/blog/youtube-tv-streaming-channel>).

174 As a further example, a smartphone can be wirelessly connected to the '206 Accused Products and display certain streaming contents provided by CDNs such as YouTube and Netflix through screen casting technology:

## How do I cast apps like YouTube or Netflix from my phone to my TV?

### Background

You can of course launch channels directly from your Roku streaming player or Roku TV™, but on some occasions, you may want to direct, or **cast**, to your TV what you are already watching on your mobile device. You can do this wirelessly with supported apps like YouTube and Netflix by opening the casting icon  on your phone or tablet and selecting your Roku device. The channel will launch automatically on your Roku device and playback will begin.

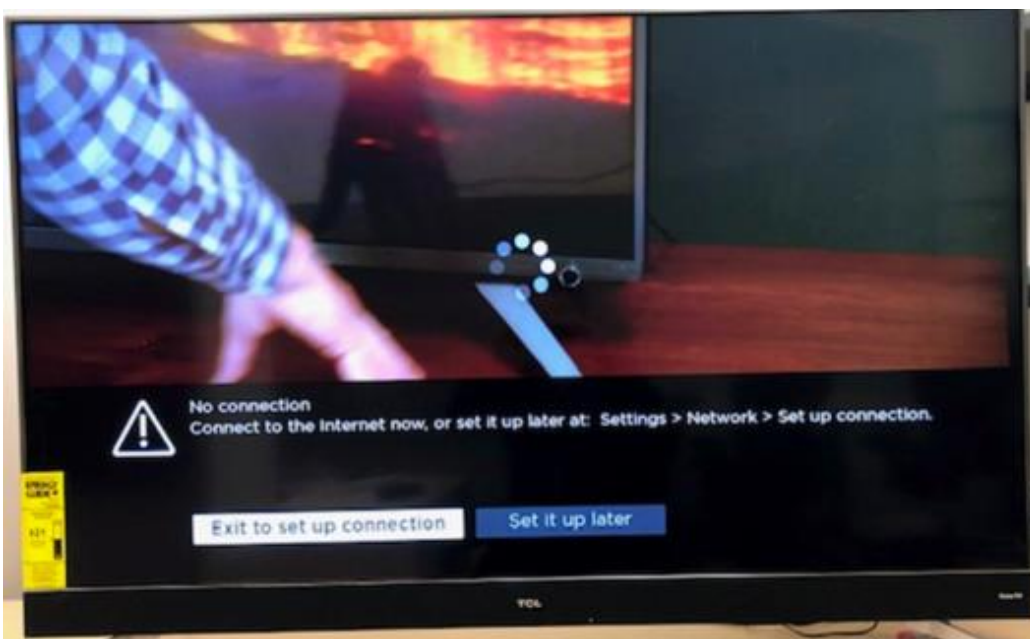
Ex. 12 (<https://support.roku.com/article/360002990094-how-do-i-cast-apps-like-youtube-or-netflix-from-my-phone-to-my-tv->).

175 The '206 Accused Products display images from these external devices, which send the images through the ports or wireless connection. The '206 Accused Products' CPUs cause the images received from the external devices to be displayed on the screen. Upon information and belief, the '206 Accused Products' CPUs display an image received from the external device via the communication unit, and if communication with the external device is disconnected, stop the display of the image received from the external device after certain various periods of time from the disconnection to the stopping of the display of the image depending on a type of external devices.

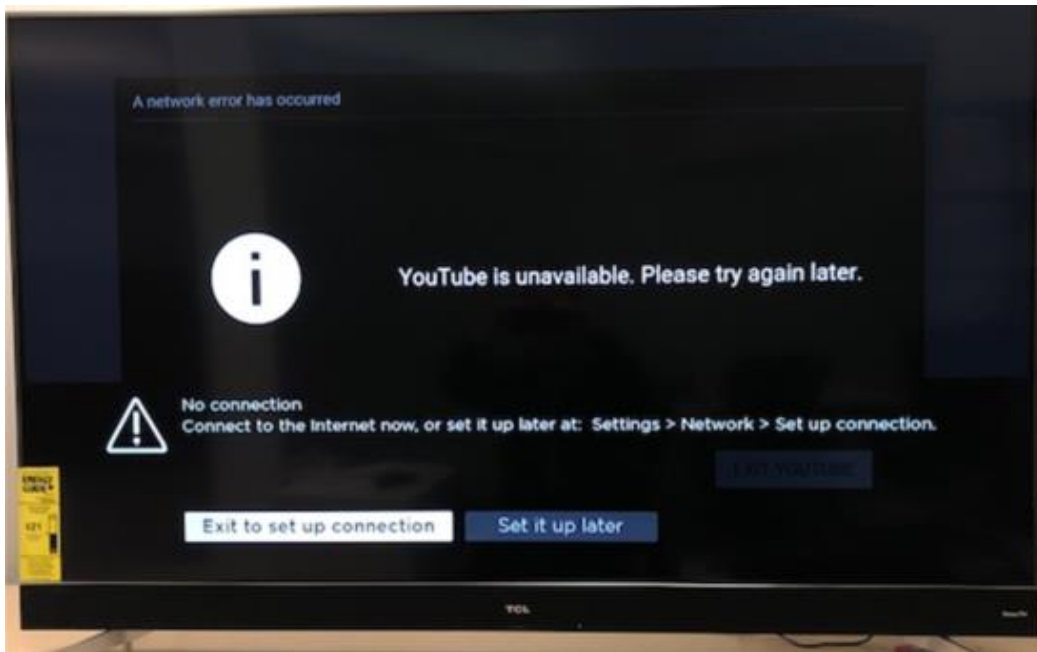
176 For example, when certain external devices are disconnected physically, the '206 Accused Products continue to display the image being displayed at the time of the disconnection for a certain period, the period varying based on the type and class of external devices. When

CDNs or Cloud DVRs are physically disconnected by, for example, switching off the router and shutting down a wifi network that connected the '206 Accused Products and the CDNs or Cloud DVRs, the '206 Accused Products continue to display the streamed contents for a period of time after disconnection.

177 For another example, when the '206 Accused Products are connected via Ethernet cable and not via wifi, CDNs such as YouTube can be physically disconnected from the '206 Accused Products by unplugging the Ethernet cable that connected the '206 Accused Products to a router or modem. After unplugging the Ethernet cable, as shown below, the '206 Accused Products continue to display YouTube video contents for a certain period until they proceed to show a black banner at the bottom of the screen indicating that there is no longer connection.



178 And after another period, as shown below, the Accused TVs proceed to overwrite the screen with a black page with white letters stating that "A network error has occurred."



179 Contrastingly, when external devices are disconnected logically, the '206 Accused Products immediately discontinue displaying the image upon disconnection. When CDNs or Cloud DVRs are logically disconnected by operating remote controllers and sending computer instructions to the '206 Accused Products and to CDNs or Cloud DVRs requesting shutting down of the CDN or Cloud DVR applications, the '206 Accused Products immediately terminate the display of the streamed contents from the CDNs or Cloud DVRs.

180 Accordingly, Defendant has infringed and is continuing to infringe the '206 Patent.

181 As a result of Defendant's inducing infringement of the '206 Patent, Canon has suffered monetary damages and is entitled to recover from Defendant all damages Canon has sustained as a result of Defendant's inducing infringement, including without limitation not less than a reasonable royalty, together with interest and costs as determined by the Court.

182 Defendant's inducing infringement of the '206 Patent has caused and is causing damage and irreparable injury to Canon, and Canon will continue to suffer irreparable injury unless and until such infringement is enjoined by this Court.

183 Defendant, moreover, is committing willful infringement of the '206 Patent because Defendant (1) continues to commit direct infringement of the '206 Patent, and (2) has had knowledge of the '206 Patent since (A) at least December 27, 2018, when Canon filed a complaint for infringement of the '206 Patent against TCL Electronics Holding Ltd. or (B), at the latest, from the filing of this Complaint. *See* Ex. 6 (Canon's complaint to TCL in the E.D. Tex.).

**COUNT XI**  
**(Induced Infringement of the '206 Patent pursuant to 35 U.S.C. §271(b))**

184 Canon repeats, realleges, and incorporates by reference, as if fully set forth herein, the allegations of the preceding paragraphs.

185 Defendant has induced and is continuing to induce infringement of Claims 1-14 of the '206 Patent by encouraging, instructing, directing, and/or requiring third parties – including TCL and end users – to use the '206 Accused Products in a way that directly infringes the '206 Patent, either literally or under the doctrine of equivalents.

186 Each of the '206 Accused Products meets all limitations of the apparatus claims of the '206 Patent. *See* Count X above. Thus, TCL directly infringes the apparatus claims of the '206 Patent by making, selling, offering for sale, and/or using the '206 Accused Products in the United States, and also importing the '206 Accused Products into the United States. And end users who use the '206 Accused Products in the United States also directly infringe the apparatus claims of the '206 Patent.

187 For example, on information and belief, Defendant has a licensing agreement with TCL that allows Defendant to oversee and maintain control of the '206 Accused Products' development – from the development and planning stages all the way through the manufacturing and marketing phases. *See* Ex. 7 (Roku 2018 Form 10-K) at 7 (“Roku TVs integrate our Roku Operating System, or Roku OS, and leverage our smart TV hardware reference design. We work with our TV brand licensees to assist in all phases of the development of Roku TVs, including development, planning, manufacturing and marketing.”). On information and belief, Defendant therefore is responsible for the content of instructions and manuals included with the '206 Accused Products, which are made available to end users. By making, using, selling, offering to sell the '206 Accused Products in the U.S. or importing the '206 Accused Products to the U.S., in accordance with the licensing agreement, TCL directly infringes the '206 Patent.

188 Instructions and manuals included with the '206 Accused Products encourage, instruct, and direct end users to use the '206 Accused Products in a particular way. *See* Ex. 8 (TCL C-Series User Guide 8.0); Ex. 9 (TCL C-Series Quick Start Guide); Ex. 11 (<https://www.tclusa.com/blog/youtube-tv-streaming-channel>); Ex. 13 (<https://www.tclusa.com/blog/how-to-watch-local-channels-without-cable>); Ex. 14 (<https://www.tclusa.com/blog/essential-cord-cutting-apps>); Ex. 15 (<https://www.tclusa.com/products/home-theater/c-series/tcl-55-class-c-series-4k-uhd-hdr-roku-smart-tv-55c807>). Use of the '206 Accused Products, in accordance with such instructions and manuals, directly infringes the '206 Patent. *See* Count X above. Upon information and belief, end users are engaging in such use and are therefore directly infringing the '206 Patent.

189 Defendant had knowledge of the '206 Patent and the '206 Accused Products' infringement of the '206 Patent or has been willfully blind to such infringement since (A) at least December 27, 2018 when Canon filed a complaint for infringement of the '206 Patent against TCL Electronics Holding Ltd. or (B), at the latest, starting from the filing of this Complaint. *See* Ex. 6 (Canon's complaint to TCL in The E.D. Tex.).

190 Despite the knowledge of the '206 Patent and the '206 Accused Products' infringement of the '206 Patent, Defendant has continued to act with specific intent to induce the infringement of the '206 Patent.

191 Accordingly, Defendant has induced and is continuing to induce infringement of the '206 Patent.

192 As a result of Defendant's induced infringement of the '206 Patent, Canon has suffered monetary damages and is entitled to recover from Defendant all damages Canon has sustained as a result of Defendant's induced infringement, including without limitation not less than a reasonable royalty, together with interest and costs as determined by the Court.

193 Defendant's induced infringement of the '206 Patent has caused and is causing damage and irreparable injury to Canon, and Canon will continue to suffer irreparable injury unless and until such infringement is enjoined by this Court.

**COUNT XII**  
**(Contributory Infringement of the '206 Patent pursuant to 35 U.S.C. §271(c))**

194 Canon repeats, realleges, and incorporates by reference, as if fully set forth herein, the allegations of the preceding paragraphs.

195 Defendant has contributed to and is continuing to contribute to the infringement of Claims 1-14 of the '206 Patent by providing the components of the '206 Accused Products to

TCL, who makes, sells, offers for sale, and/or uses the '206 Accused Products in the United States and also imports the '206 Accused Products into the United States. The '206 Accused Products, moreover, are made available to end users who use the '206 Accused Products in the United States.

196 For example, each of the '206 Accused Products meets all limitations of the apparatus claims of the '206 Patent. *See* Count X above. Thus, TCL directly infringes the apparatus claims of the '206 Patent by making, selling, offering for sale, and/or using the '206 Accused Products in the United States, and also importing the '206 Accused Products into the United States. And end users who use the '206 Accused Products in the United States also directly infringe the apparatus claims of the '206 Patent.

197 Use of the '206 Accused Products, moreover, infringes the method claims of the '206 Patent because such use leads to the performing of each and every step of the claimed methods. *See* Count X above. Thus, TCL and end users each directly infringe the method claims of the '206 Patent when using the '206 Accused Products in the United States.

198 The components of the '206 Accused Products that Defendant provides to TCL include, among others, the Roku OS, smart TV hardware reference design, and instructions directing the development of the '206 Accused Products. *See* Ex. 7 (Roku 2018 Form 10-K) at 7 (“Roku TVs integrate our Roku Operating System, or Roku OS, and leverage our smart TV hardware reference design. We work with our TV brand licensees to assist in all phases of the development of Roku TVs, including development, planning, manufacturing and marketing.”). On information and belief, these components are material to the infringing instrumentalities of the '206 Accused Products and are, consequently, material parts of the invention covered by the



'206 Patent. *See* Count X above. Furthermore, on information and belief, these components are especially made or adapted for use in the '206 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use.

199 Defendant had knowledge of the '206 Patent and the '206 Accused Products' infringement of the '206 Patent or has been willfully blind to such since (A) at least December 27, 2018 when Canon filed a complaint for infringement of the '206 Patent against TCL Electronics Holding Ltd. or (B), at the latest, starting from the filing of this Complaint. *See* Ex. 6 (Canon's complaint to TCL in the E.D. Tex.).

200 Accordingly, Defendant has contributed and is contributing to infringement of the '206 Patent.

201 As a result of Defendant's contributory infringement of the '206 Patent, Canon has suffered monetary damages and is entitled to recover from Defendant all damages Canon has sustained as a result of Defendant's contributory infringement, including without limitation not less than a reasonable royalty, together with interest and costs as determined by the Court.

202 Defendant's contributory infringement of the '206 Patent has caused and is causing damage and irreparable injury to Canon, and Canon will continue to suffer irreparable injury unless and until such infringement is enjoined by this Court.

**COUNT XIII**  
**(Direct Infringement of the '130 Patent pursuant to 35 U.S.C. §271(a))**

203 Canon repeats, realleges, and incorporates by reference, as if fully set forth herein, the allegations of the preceding paragraphs.

204 Roku TVs, including without limitations, 3-series TV systems (e.g., Models 32S325, 40S325, 43S325, 49S325, 28S305, 32S301, 32S305, 32S327, 40S303, 40S305, 43S303,

43S305, 49S303, and 49S305), 4-series TV systems (e.g., Models 43S421, 50S421, 55S421, 65S421, 43S423, 75S423, 75S425, 43S403, 43S405, 43S425, 49S403, 49S405, 49S425, 50S423, 50S425, 55S423, 55S425, 55S401, 55S403, 55S405, 65S401, 65S403, 65S405, 65S423 and 65S425), 5-series TV Systems (e.g., Models 43S515, 43S517, 49S515, 49S517, 55S515, 55S517, 65S515 and 65S517), 6-series TV Systems (e.g., Models 75R517, 55R615, 55R617, 65R615, 65R617 and 75R615), P6-series TV Systems (e.g., Models 55P605 and 55P607), and C8-series TV Systems (e.g., Models 55C803, 55C807, 65C807, 75C803 and 75C807), S-series TV systems (e.g., 32S3700, 40FS3750, 65US5800, 55US5800, 32S3700, 40F3750, 32S3750, 28S3750, 32S3850A, 32S3850B, 32S3850P, 32S3850, 55FS3750, 48FS3750, 55FS3850, 50FS3850, 32S3800, 50FS3800, 40FS3800, 40FS3850, 40FS4610R, 48FS3700, 48FS4610R, 55FS3700, 55FS4610R), P-series TV systems (e.g., 55UP130, 43UP130, 50UP130, 55UP120, 50UP120, 43UP120, 49FP110, 43FP110) (collectively “the ‘130 Accused Products”) integrate and make use of the Roku OS and Roku services.

205 Defendant has directly infringed and continues to directly infringe Claims 1-8 of the ’130 Patent literally and/or under the doctrine of equivalents by selling or offering to sell the ’130 Accused Products through its own U.S. website at [www.roku.com](http://www.roku.com). *See* Ex. 16 (<https://www.roku.com/products/finder/roku-tv/results>).

206 Defendant has directly infringed and continues to directly infringe Claims 1-8 of the ’130 Patent literally and/or under the doctrine of equivalents by using the ’130 Accused Products in the United States during the televisions’ research and development, such as when testing the Roku OS and Roku services on ‘130 Accused Products.

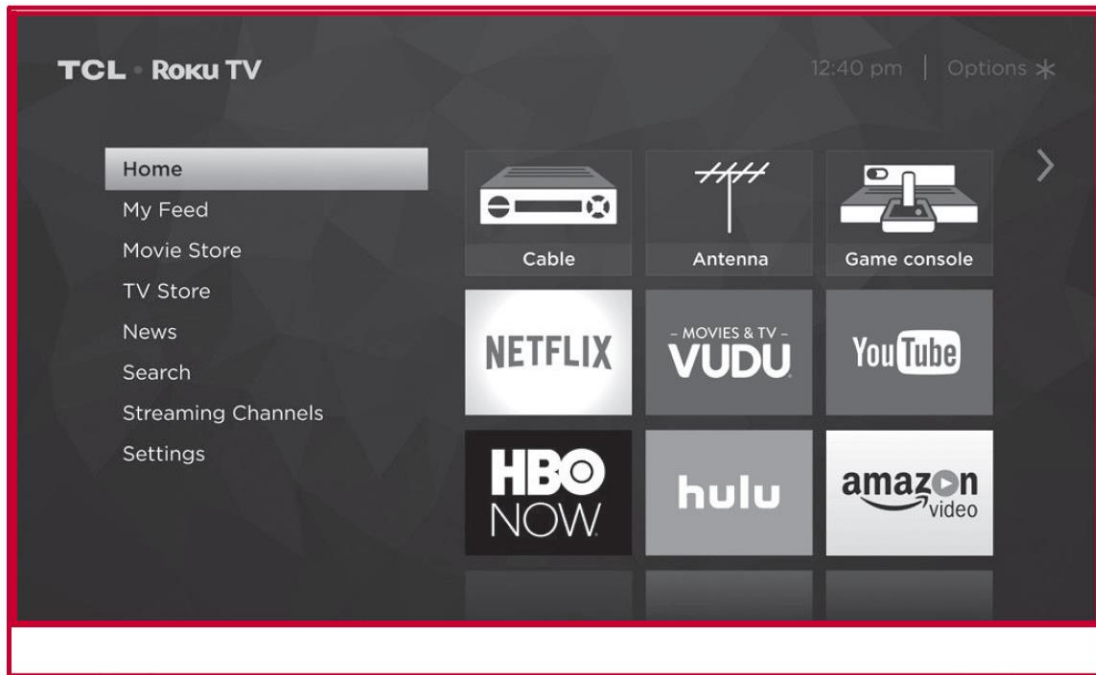
207 Furthermore, Defendant has directly infringed and continues to directly infringe the method claims of the '130 Patent literally and/or under the doctrine of equivalents, by conditioning the receiving by TCL of benefits of, for example, buffering features of the Roku OS upon performance of a step or steps of a patented method, such as the step of receiving an operation of turning off and turning on a power source for supplying power, and establishing the manner or timing of that performance by controlling such steps via the Roku OS and its smart TV hardware reference design.

208 Defendant's acts of using and directing and/or controlling the third parties' use of the '130 Accused Products have been without Canon's permission, consent, authorization, or license.

209 In particular, the '130 Accused Products practice the patented invention of the '130 Patent, and the '130 Accused Products meets each and every limitation of the apparatus claims of the '130 Patent, including the capability to buffer and record streaming contents while the contents are not being displayed on the television either while the television's power is off or while the user is viewing other programs. Accordingly, use of the '130 Accused Products infringes the apparatus claims of the '130 Patent.

210 Furthermore, the '130 Accused Products practice the patented invention of the '130 Patent, and the use of the '130 Accused Products infringes the method claims of the '130 Patent because such use leads to the performing of each and every step of the claimed methods, including the buffering and recording of streaming contents while the contents are not being displayed on the television either while the television's power is off or while the user is viewing other programs.

211 As a way of illustration, each of the '130 Accused Products receives and displays streaming contents through an internet connection.



Ex. 9 ([https://www.tclusa.com/sites/default/files/2017-07/C-Series\\_Quick\\_Start\\_Guide.pdf](https://www.tclusa.com/sites/default/files/2017-07/C-Series_Quick_Start_Guide.pdf)).

## Preparing for Internet connectivity

If you want to watch streaming content and take advantage of the cool features of your TCL • Roku TV, connect it to the Internet through a wireless modem/router or a wireless access point (not provided). The TV has a built-in wireless LAN adapter.

Ex. 8 ([https://www.tclusa.com/sites/default/files/2017-](https://www.tclusa.com/sites/default/files/2017-12/8.0_User_Manual_C_Series_Final_1.pdf)

[12/8.0\\_User\\_Manual\\_C\\_Series\\_Final\\_1.pdf](https://www.tclusa.com/sites/default/files/2017-12/8.0_User_Manual_C_Series_Final_1.pdf)) at 11. The '130 Accused Products also store URL information of the streaming contents:

## Recent Searches

The next time you use Roku Search, the **Search** screen displays a list of recent search selections in place of the search instructions.

Using the recent search selections list makes it easy to quickly get to a previously found item, for example, to find another movie with the same actor, or another TV show in the same series.

Ex. 8 ([https://www.tclusa.com/sites/default/files/2017-](https://www.tclusa.com/sites/default/files/2017-12/8.0%20User%20Manual%20C%20Series%20Final%201.pdf)

[12/8.0 User Manual C Series Final 1.pdf](https://www.tclusa.com/sites/default/files/2017-12/8.0%20User%20Manual%20C%20Series%20Final%201.pdf)) at 11.

212 Upon information and belief, the '130 Accused Products include an operation unit for receiving an operation of turning off and turning on a power source for supplying power, a buffering unit for buffering the moving image-streaming content received by the '130 Accused Products and a control unit that reads out the URL information stored in its memory, controls, while the power source is in an off state, to periodically repeat accessing of a URL of the moving image-streaming content which had been displayed previously, buffer the content and display the latest buffered content after turning on the power source.

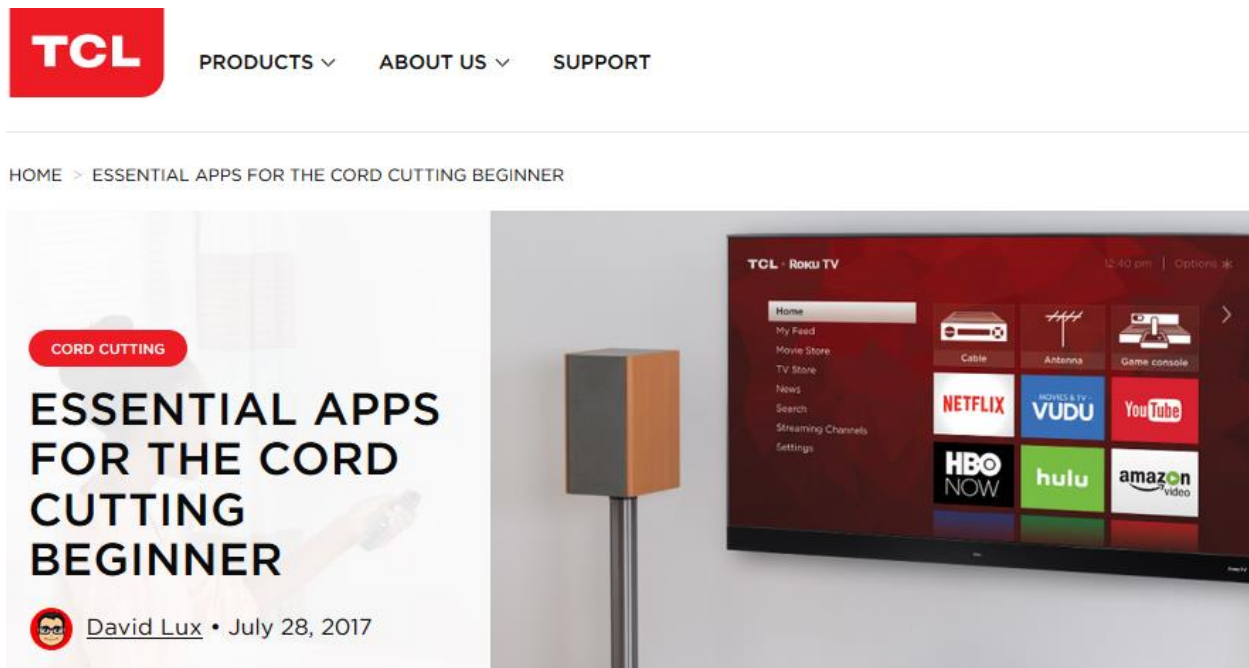
213 For example, as shown below, the '130 Accused Products buffer and record streaming contents through the use of "streaming channels" that have Cloud DVR functionality such as DirecTV Now, Sling TV and YouTube TV while either the '130 Accused Products are turned off or while the user is viewing different programs such as Cable TV programs. Upon information and belief, the '130 Accused Products accomplish this by having their CPUs repeatedly access the URL information of the streaming contents stored in their memory. And the '130 Accused Products allow users to enjoy the buffered streaming contents after turning on

the power source or reconnecting to the Cloud DVR application that provides the streaming content.

## Add streaming channels

You can add streaming channels by searching in the Roku Channel Store. New streaming channels are added to the bottom of the Home screen. If you want to move the channel tile to a different position in the grid, see [Rearrange tiles](#).

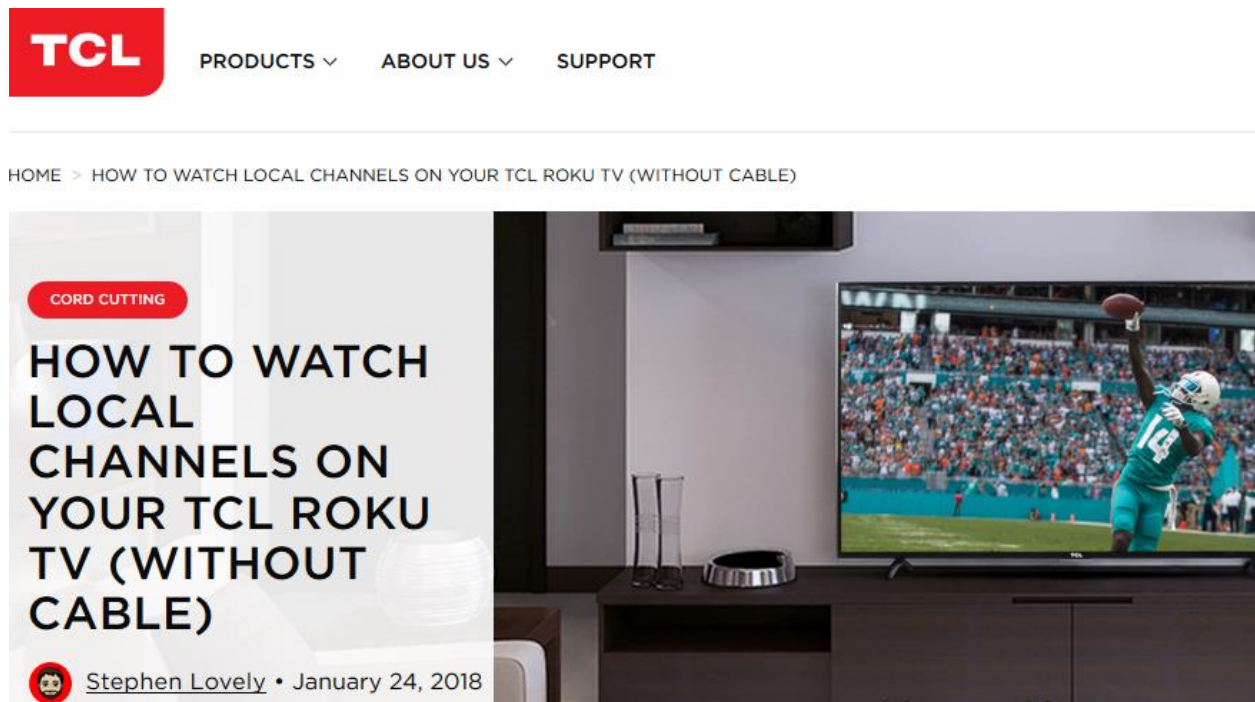
Ex. 10 ([https://www.tclusa.com/sites/default/files/2017-12/8.0\\_User\\_Manual\\_S\\_Series\\_Final\\_4.pdf](https://www.tclusa.com/sites/default/files/2017-12/8.0_User_Manual_S_Series_Final_4.pdf)) at 85.



## Sling TV

Sling TV prides itself on offering a la carte TV. It's the only live service that lets you personalize your channel lineup. This means no more useless channels, and no long-term commitments, making it a popular choice among cord cutters. The base Sling Orange service offers 30 channels including ESPN, Disney Channel, AMC, TNT, TBS, and CNN, and you can always add more channels you want. Plans start at \$20 /mo.

Ex. 14 (<https://www.tclusa.com/blog/essential-cord-cutting-apps>)

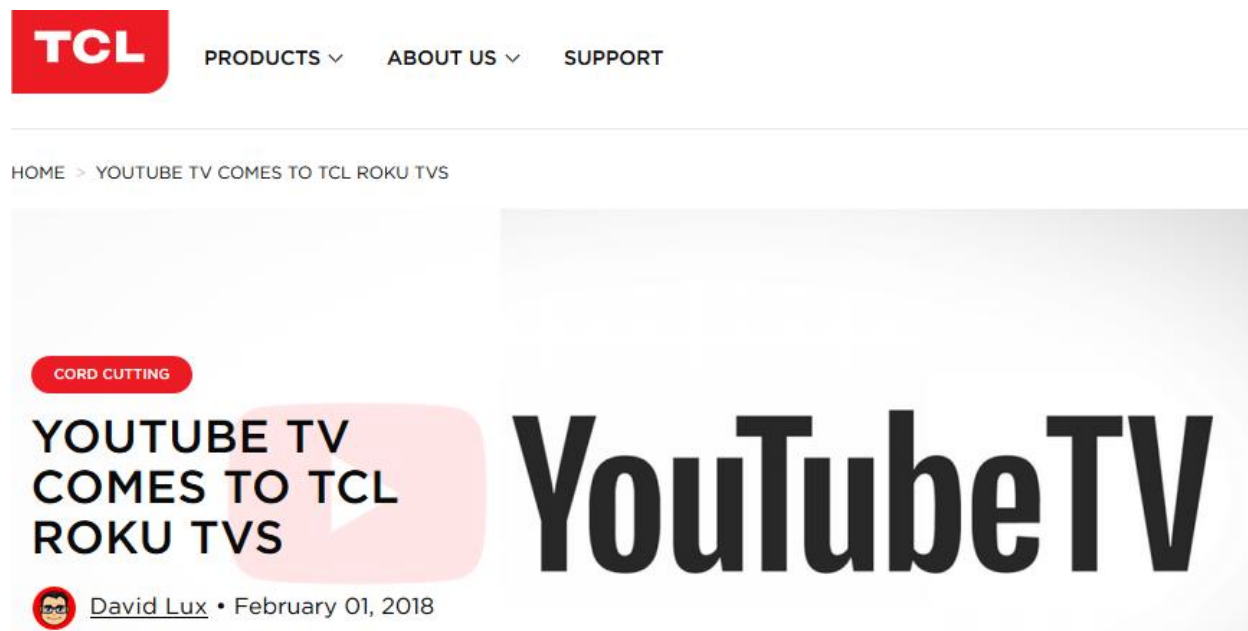




The live TV streaming service market is relatively young right now, but it's already crowded with competition (which is another advantage it has over cable and satellite!). Here are a few options to consider:

- **DirectTV Now:** AT&T's skinny bundle includes all four major networks, plus regional sports coverage.
- **fuboTV:** Once a soccer-focused service, this skinny bundle now offers a broader range of channels, including CBS, Fox, and NBC, plus regional sports networks.
- **Hulu with Live TV:** The live TV offering from the longtime on-demand service Hulu includes all four major networks and some regional sports coverage.
- **PlayStation Vue:** Don't sweat the name – PlayStation Vue is available on your TCL Roku TV, not just on the gaming system it shares a name with. PlayStation Vue offers all four major networks, plus regional sports networks.
- **Sling TV:** Sling TV is Dish's entry into the market, and includes ABC, Fox, and NBC, plus a selection of regional sports networks.
- **YouTube TV:** YouTube TV isn't available everywhere yet, but it offers all four major networks and some regional sports coverage.

Ex. 13 (<https://www.tclusa.com/blog/how-to-watch-local-channels-without-cable>).



With YouTube TV, you can enjoy live, cable-free TV without a set top box. From live sports to breaking news, watch all your favorite content from dozens of your favorite networks. Plus, it comes with unlimited cloud DVR storage—record live TV and never run out of storage!



YouTube TV is available in the Roku Channel Store now. To add the channel, go to Streaming Channels on your TCL Roku TV to open the Channel Store or [click here](#).

Ex. 11 (<https://www.tclusa.com/blog/youtube-tv-streaming-channel>).

214 Accordingly, Defendant has infringed and is continuing to infringe the '130 Patent.

215 As a result of Defendant's inducing infringement of the '130 Patent, Canon has suffered monetary damages and is entitled to recover from Defendant all damages Canon has sustained as a result of Defendant's inducing infringement, including without limitation not less than a reasonable royalty, together with interest and costs as determined by the Court.

216 Defendant's inducing infringement of the '130 Patent has caused and is causing damage and irreparable injury to Canon, and Canon will continue to suffer irreparable injury unless and until such infringement is enjoined by this Court.

217 Defendant, moreover, is committing willful infringement of the '130 Patent because Defendant (1) continues to commit direct infringement of the '130 Patent, and (2) has had knowledge of the '130 Patent since at least December 27, 2018, when Canon filed a complaint for infringement of the '130 Patent against TCL Electronics Holding Ltd. or – at the latest – from the filing of this Complaint. *See* Ex. 6 (Canon's complaint to TCL in The E.D. Tex.).

**COUNT XIV**  
**(Induced Infringement of the '130 Patent pursuant to 35 U.S.C. §271(b))**

218 Canon repeats, realleges, and incorporates by reference, as if fully set forth herein, the allegations of the preceding paragraphs.

219 Defendant has induced and is continuing to induce infringement of Claims 1-8 of the '130 Patent by encouraging, instructing, directing, and/or requiring third parties – including Roku TV licensees and end users – to use the '130 Accused Products in a way that directly infringes the '130 Patent, either literally or under the doctrine of equivalents.

220 Each of the '130 Accused Products meets all limitations of the apparatus claims of the '130 Patent. *See* Count XIII above. Thus, TCL directly infringes the apparatus claims of the '130 Patent by making, selling, offering for sale, and/or using the '130 Accused Products in the United States, and also importing the '130 Accused Products into the United States. And end users who use the '130 Accused Products in the United States also directly infringe the apparatus claims of the '130 Patent.

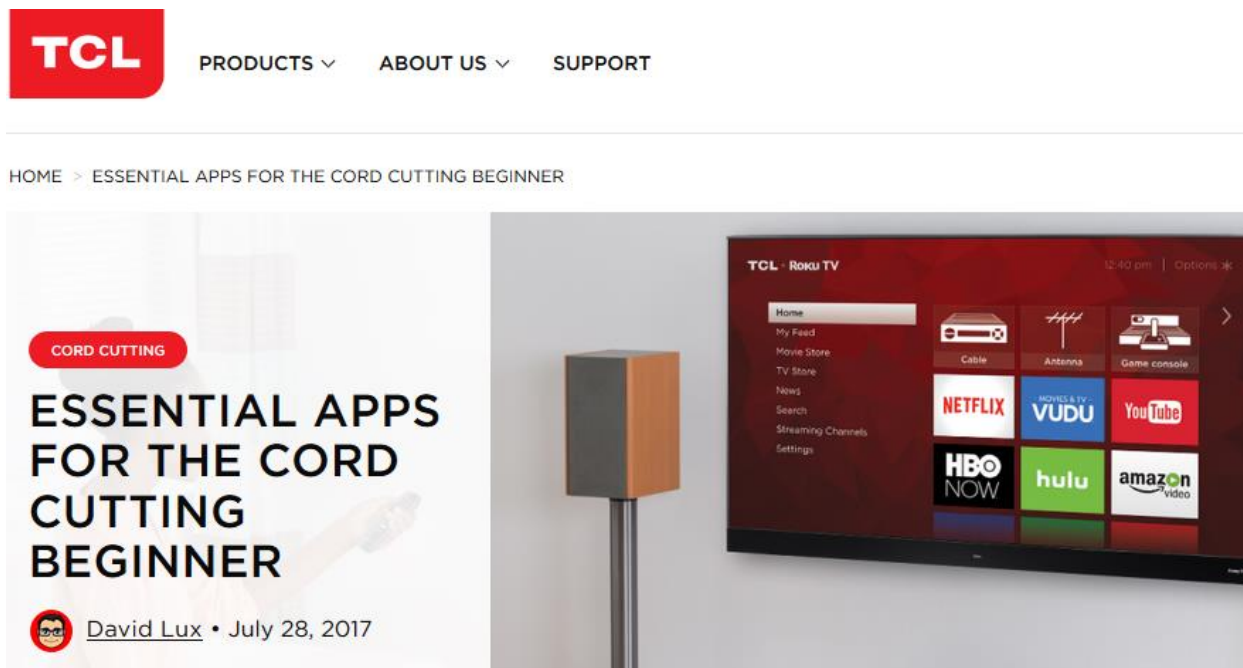
221 For example, on information and belief, Defendant has a licensing agreement with TCL that allows Defendant to oversee and maintain control of the '130 Accused Products' development – from the development and planning stages all the way through the manufacturing and marketing phases. *See* Ex. 7 (Roku 2018 Form 10-K) at 7 (“Roku TVs integrate our Roku Operating System, or Roku OS, and leverage our smart TV hardware reference design. We work with our TV brand licensees to assist in all phases of the development of Roku TVs, including development, planning, manufacturing and marketing.”). On information and belief, Defendant therefore is responsible for the content of instructions and manuals included with the '130 Accused Products, which are made available to end users. By making, using, selling, offering to sell the '130 Accused Products in the U.S. or importing the '130 Accused Products to the U.S., in accordance with the licensing agreement, TCL directly infringes the '130 Patent.

222 Instructions and manuals for the '130 Accused Products encourage, instruct, and direct end users to use the '130 Accused Products in a particular way. *See* Ex. 8 (TCL C-Series User Guide 8.0); Ex. 9 (TCL C-Series Quick Start Guide); Ex. 11 (<https://www.tclusa.com/blog/youtube-tv-streaming-channel>); Ex. 13 (<https://www.tclusa.com/blog/how-to-watch-local-channels-without-cable>); Ex. 14 (<https://www.tclusa.com/blog/essential-cord-cutting-apps>); Ex. 15 (<https://www.tclusa.com/products/home-theater/c-series/tcl-55-class-c-series-4k-uhd-hdr-roku-smart-tv-55c807>). *See also*

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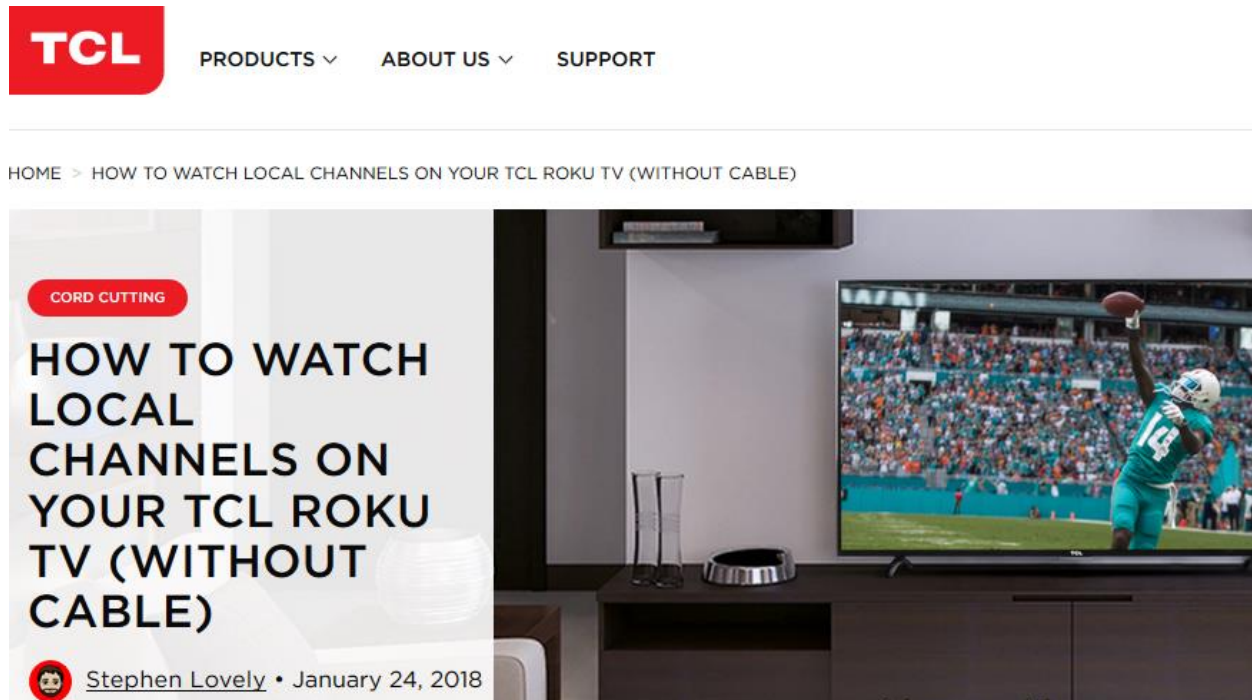
Ex. 10 ([https://www.tclusa.com/sites/default/files/2017-12/8.0\\_User\\_Manual\\_S\\_Series\\_Final\\_4.pdf](https://www.tclusa.com/sites/default/files/2017-12/8.0_User_Manual_S_Series_Final_4.pdf)) at 85.



### Sling TV

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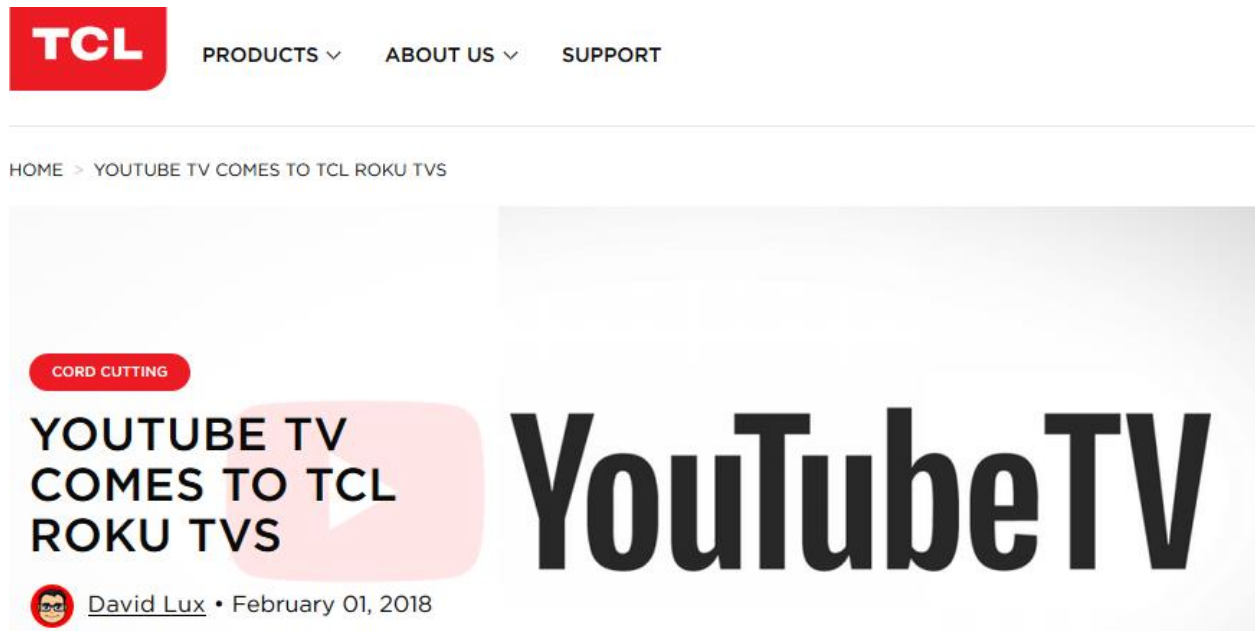
Ex. 14 (<https://www.tclusa.com/blog/essential-cord-cutting-apps>)



The live TV streaming service market is relatively young right now, but it's already crowded with competition (which is another advantage it has over cable and satellite!). Here are a few options to consider:

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- **Sling TV:** Sling TV is Dish's entry into the market, and includes ABC, Fox, and NBC, plus a selection of regional sports networks.
- **YouTube TV:** YouTube TV isn't available everywhere yet, but it offers all four major networks and some regional sports coverage.

Ex. 13 (<https://www.tclusa.com/blog/how-to-watch-local-channels-without-cable>).



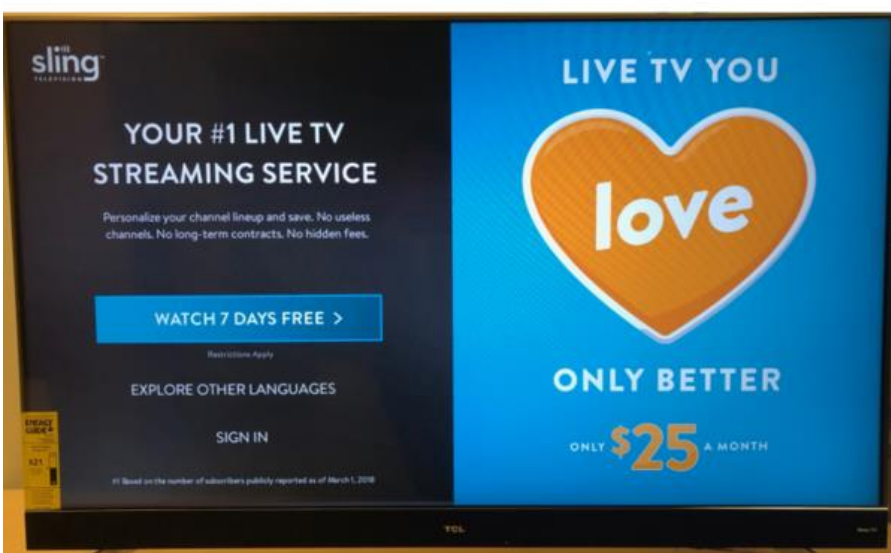
With YouTube TV, you can enjoy live, cable-free TV without a set top box. From live sports to breaking news, watch all your favorite content from dozens of your favorite networks. Plus, it comes with unlimited cloud DVR storage—record live TV and never run out of storage!

YouTube TV is available in the Roku Channel Store now. To add the channel, go to Streaming Channels on your TCL Roku TV to open the Channel Store or [click here](#).

Ex. 11 (<https://www.tclusa.com/blog/youtube-tv-streaming-channel>).

223 Similarly, Defendant instructs and directs its customers to use sling TV application's Cloud DVR functionality and thereby use the accused system or perform the steps disclosed in the '130 Patent, either literally or under the doctrine of equivalents:





224 Use of the '130 Accused Products, in accordance to such instructions and manuals, directly infringes the '130 Patent. *See* Count XIII above. Upon information and belief, end users are engaging in such use (for example, after activating various Cloud DVR programs – including DirecTV Now, Sling and YouTube TV – thereafter using the Cloud DVR functionalities as guided and/or instructed) and are therefore directly infringing the '130 Patent.

225 Defendant had knowledge of the '130 Patent and the '130 Accused Products' infringement of the '130 Patent or has been willfully blind to such infringement since (A) at least December 27, 2018 when Canon filed a complaint for infringement of the '130 Patent against TCL Electronics Holding Ltd. or (B), at the latest, starting from the filing of this Complaint. *See* Ex. 6 (Canon's complaint to TCL in the E.D. Tex.).

226 Despite the knowledge of the '130 Patent and the '130 Accused Products' infringement of the '130 Patent, Defendant continued to act with specific intent to induce the infringement of the '130 Patent.

227 Accordingly, Defendant has induced and is continuing to induce infringement of the '130 Patent.

228 As a result of Defendant's inducing infringement of the '130 Patent, Canon has suffered monetary damages and is entitled to recover from Defendant all damages Canon has sustained as a result of Defendant's inducing infringement, including without limitation not less than a reasonable royalty, together with interest and costs as determined by the Court.

229 Defendant's inducing infringement of the '130 Patent has caused and is causing damage and irreparable injury to Canon and Canon will continue to suffer irreparable injury unless and until such infringement is enjoined by this Court.



**COUNT XV**  
**(Contributory Infringement of the '130 Patent pursuant to 35 U.S.C. §271(c))**

230 Canon repeats, realleges, and incorporates by reference, as if fully set forth herein, the allegations of the preceding paragraphs.

231 Defendant has contributed to and is continuing to contribute to the infringement of Claims 1-8 of the '130 Patent by providing the components of the '130 Accused Products to TCL, who makes, sells, offers for sale, and/or uses the '130 Accused Products in the United States and also imports the '130 Accused Products into the United States. The '130 Accused Products, moreover, are made available to end users who use the '130 Accused Products in the United States.

232 For example, each of the '130 Accused Products meets all limitations of the apparatus claims of the '130 Patent. *See* Count XIII above. Thus, TCL directly infringes the apparatus claims of the '130 Patent by making, selling, offering for sale, and/or using the '130 Accused Products in the United States, and also importing the '130 Accused Products into the United States. And end users who use the '130 Accused Products in the United States also directly infringe the apparatus claims of the '130 Patent.

233 Use of the '130 Accused Products, moreover, infringes the method claims of the '130 Patent because such use leads to the performing of each and every step of the claimed methods. *See* Count XIII above. Thus, TCL and end users each directly infringe the method claims of the '130 Patent when using the '130 Accused Products in the United States.

234 The components of the '130 Accused Products that Defendant provides to TCL include, among others, the Roku OS, smart TV hardware reference design, instructions directing the development of the '130 Accused Products. *See* Ex. 7 (Roku 2018 Form 10-K) at 7 (“Roku

TVs integrate our Roku Operating System, or Roku OS, and leverage our smart TV hardware reference design. We work with our TV brand licensees to assist in all phases of the development of Roku TVs, including development, planning, manufacturing and marketing.”). On information and belief, these components are material to the infringing instrumentalities of the ’130 Accused Products and are, consequently, material parts of the invention covered by the ’130 Patent. *See* Count XIII above. Furthermore, on information and belief, these components are especially made or adapted for use in the ’130 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use.

235 Defendant had knowledge of the ’130 Patent and the ’130 Accused Products’ infringement of the ’130 Patent or has been willfully blind to such infringement since (A) at least December 27, 2018 when Canon filed a complaint for infringement of the ’130 Patent against TCL Electronics Holding Ltd. or (B), at the latest, starting from the filing of this Complaint. *See* Ex. 6 (Canon’s complaint to TCL in the E.D. Tex.).

236 Accordingly, Defendant has contributed and is contributing to infringement of the ’130 Patent.

237 As a result of Defendant’s contributory infringement of the ’130 Patent, Canon has suffered monetary damages and is entitled to recover from Defendant all damages Canon has sustained as a result of Defendant’s contributory infringement, including without limitation not less than a reasonable royalty, together with interest and costs as determined by the Court.

238 Defendant’s contributory infringement of the ’130 Patent has caused and is causing damage and irreparable injury to Canon, and Canon will continue to suffer irreparable injury unless and until such infringement is enjoined by this Court.

**PRAYER FOR RELIEF**

WHEREFORE, Canon respectfully requests the following relief from this Court:

(A) A judgment that Defendant has infringed one or more claims of each of the Asserted Patents;

(B) A judgment that Defendant has willfully infringed one or more claims of each of the Asserted Patents;

(C) A judgment that Defendant has indirectly infringed by inducing the infringement of one or more claims of each of the Asserted Patents;

(D) A judgment that Defendant has indirectly infringed by contributing to the infringement of one or more claims of each of the Asserted Patents;

(E) A judgment that each of the Asserted Patents is valid and enforceable;

(F) A judgment awarding Canon its damages resulting from Defendant's infringement of each of the Asserted Patents, and in no event less than a reasonable royalty;

(G) A judgment requiring Defendant to pay Canon's costs, expenses, and pre-judgment and post-judgment interest for Defendant's infringement of each of the Asserted Patents;

(H) An order and judgment permanently enjoining Defendant and its officers, directors, agents, servants, employees, affiliates, attorneys, and all others acting in privity or in concert with them, and their parents, subsidiaries, divisions, successors and assigns from further acts of infringement of the Asserted Patents;

(I) A judgment finding that this is an exceptional case and awarding Canon its reasonable attorneys' fees incurred pursuant to 35 U.S.C. § 285; and

(J) Such other relief as the Court deems proper and just.

**JURY TRIAL DEMAND**

Canon hereby demands trial by jury on all issues so triable pursuant to Rule 38 of the Federal Rules of Civil Procedure on all issues so triable.

Dated: April 5, 2019

By: /s/ John P. Palmer

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